TEACHER CHARACTERISTICS AND SPECIAL CLASS PLACEMENT OF MILDLY RETARDED CHILDREN

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ABSTRACT

The possibility that teacher, classroom and school factors were involved in the differential educational placement of low IQ children in regular or special classes for mildly retarded children was examined. The subjects were 48 seven and eight year old children with IQs in the 50-80 range. Sixteen of the children (7 girls and 9 boys) attended regular classes and had never been referred to the School Psychological Service (N-R); 16 children (9 boys and 7 girls) had remained in regular classes after referral to the School Psychological Service (R-SC); and 16 children (9 boys and 7 girls) had been transferred to special classes in the six months prior to the investigation (S-C). Two studies were undertaken. Study 1 involved a comparison of N-R and S-C groups, and Study 2 involved a comparison of N-R and R-SC groups, and of R-SC and S-C groups. Questionnaires were administered to the class teachers, principals and supervisors of junior classes (STJCs) of the N-R children, and to the class teachers, principals and STJCs of R-SC and S-C children at the time of their referral to the Psychological Service.

Teachers of N-R children, in comparison with S-C teachers, showed higher ratings of their personal/situational competence to accommodate low ability children, reported a higher proportion of low achievers in their classes, rated the subjects in their classes more highly in terms of personal adequacy, and more N-R teachers than S-C teachers

were married (Study 1). In Study 2, N-R teachers also showed higher ratings on these measures than R-SC teachers, and R-SC teachers tended to show higher ratings than S-C teachers. Neither the N-R vs., R-SC nor the R-SC vs., S-C differences were significant, however. The STJCs of N-R children believed more strongly than the STJCs of S-C children that low IQ children in regular classes impede the progress of other children, and that STJC/principal support enables teachers to cope adequately with low IQ children in regular classes (Study 1). Similar differences were apparent in Study 2 with N-R STJCs showing stronger beliefs than R-SC STJCs, and R-SC STJCs stronger beliefs than S-C STJCs. Neither of these comparisons yielded significant differences, however. At the same time, the STJCs of R-SC boys believed more strongly than the STJCs of S-C boys that the support provided by the Psychological Service enables teachers to cope adequately with low IQ children in regular classes, that low IQ children do not place undue demands on the teachers' time and that the presence of low IQ children in a regular class does not impede the progress of other children. The principals' beliefs regarding special class/mainstreaming did not differentiate the groups in either study.

It was concluded that teacher, class and school characteristics are involved in the differential educational decisions involving low IQ children, and in particular in the decision of whether or not a child is transferred to a special class. The results were discussed in relation to the mainstreaming versus special class issue and the methodological problems encountered.

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CHAPTER I

INTRODUCTION

The mentally retarded constitute approximately three percent of the New Zealand population, and approximately ninety percent of this group are mildly retarded - some 80,000 people. In New Zealand, as elsewhere, the mildly retarded present a major societal and educational problem (McCandless, 1964). Special educational provisions for the mildly retarded which were instituted during the first World War, followed the North American pattern of special classes in regular schools rather than the British special schools strategy. At present approximately 3,800 children attend special classes in New Zealand schools (Department of Education, 1975).

Many attempts have been made to examine the effectiveness and desirability of special classes for mildly retarded children. Most studies, however, are fraught with methodological problems and the findings are virtually impossible to interpret (Kirk, 1964; Guskin & Spicker, 1968; Blatt & Garfunkel, 1973) and in the one major study which appeared to overcome these problems (Goldstein, Moss & Jordan, 1965), no significant educational or social benefits for the children who attended special classes were apparent after four years. Consequently, there is a conspicuous lack of documented advantages of special class attendance for mildly retarded children. In recent years, many special educators have questioned not only the effectiveness but also the appropriateness of special classes. While the major aim of

special educational provisions for the mildly retarded children must be to prepare such children academically, socially and vocationally for life in the mainstream of society to the maximum degree that they are capable of achieving, many of the factors associated with the traditional special class, especially the segregation of special class pupils from their nonretarded peers, together with lowered expectations and differential treatment of special class pupils by teachers and children, may in fact work against the assimilation and acceptance of mildly retarded persons by the community.

In response to these concerns regarding special classes, and especially in North America, retention of mildly retarded children within regular classrooms - "mainstreaming", is being increasingly advocated (and in some areas legally enforced) as a preferable special educational strategy to the traditional special class. At present, however, the segregated special class is by far the most common special educational provision for mildly retarded children both in North America, and in New Zealand alternatives to the special class are virtually non existent. As a number of writers have pointed out (e.g., Blatt & Garfunkel, 1973; Cruickshank, 1974) the virtually exclusive concern with these alternative models on the part of educators probably reflects their desire for simple administrative solutions to complex educational problems - problems which seldom have simple answers. Merely to abandon special classes in favour of mainstreaming provisions is not only premature, but could well be dangerous. The establishment of special classes was a response to a significant educational problem which arose

because a large number of children could not, in the opinion of their teachers, be accommodated adequately in regular classes. Until the factors which initiate the transfer of children from the mainstream are delineated and understood, however, they will presumably continue to operate, possibly to the detriment of those children involved.

The belief that it is the mildly retarded child's learning and/or behavioural characteristics which necessitate his receiving special educational provisions, was and is, widely held by special educators and researchers. Indeed a voluminous amount of research has been directed at uncovering the 'special' learning difficulties/deficits of mildly retarded children and into the efficacy of 'special' curricula and teaching strategies for such children. To date, however, 'special' learning difficulties have not yet been uncovered (Zigler, 1966), and the advantages of 'special' curricula and/or teaching strategies have not been documented. The possibility that the mildly retarded child's particular educational situation, especially the capability, quality, attitudes, and values of his teacher, may help to determine whether or not he receives special educational provisions, has received scant research attention. If teachers who refer mildly retarded children for special classes have different attitudes and values from those who prefer to retain them in regular classes, such attitudes and values (and perhaps differential teaching abilities) will need to be accommodated (if not modified) before mainstreaming provisions can be expected to be beneficial to the children concerned. In any case, it is clear that it is necessary to know <u>why</u> special class children are in fact admitted to special class before

effective special educational provisions can be developed. If the problem arises in the child's educational circumstances as well as, or rather than, in the child himself, attention to such circumstances is clearly necessary. In the present study an attempt was made to examine the possibility that characteristics of regular class teachers (experience, qualifications, personality, attitudes to slow learning children, attitudes to mainstreaming provisions, etc.) differentiate children who are admitted to special class from those of equivalent age and ability whose special class placement is not sought by their teachers.

CHAPTER TWO

REVIEW OF LITERATURE

Attempts to educate the mentally retarded have a long history which can be traced to such pioneers as Itard, Seguin, and Montessori (Doll, 1972). Public educational provisions for the mentally retarded in Europe and North America probably received their greatest impetus, however, from the spread of free and compulsory public education. In such circumstances the problem of the mentally retarded could no longer be ignored, and the need for special educational provisions became clear (Skodak, 1975). At the same time, it should be noted that such provisions were in fact relatively slow to materialize (e.g. the first provisions in England opened in 1892, and in the United States in 1896) and where they did, they seem to have stemmed more from organizational convenience than from concern for the mentally retarded (Blackman, 1967; Christoplos & Renz, 1969).

Since their inception, New Zealand special educational provisions for the mildly retarded have been made in special classes in regular schools, the North American model, rather than, as in Britain, in segregated special schools. The first New Zealand primary class for mildly retarded children was established in Auckland in 1917, with further classes opened in Wellington and Christchurch in 1919 and 1921 respectively (Winterbourn, 1944). The growth in the number of special classes in New Zealand was steady but comparatively slow over the next thirty years, but a rapid increase occurred

in the post war years (Milne, 1972) from a total of 53 classes in 1953 to one of 224 classes in 1971. Currently there are 240 special classes in New Zealand primary and intermediate schools with 2,781 children attending such classes (New Zealand Department of Education, 1975). The first secondary (work experience) classes were opened in 1962. These programmes have been expanded steadily since that time, and at present there are 1,030 children enrolled in work experience classes. No adequate incidence data for New Zealand children are available, but most overseas studies indicate that approximately two percent of the school population are mildly retarded (Robinson & Robinson, 1976). If, as seems likely, the incidence of mild retardation in New Zealand is similar to that found overseas, there would be approximately 15,000 mildly retarded children in New Zealand (Department of Education, 1975). It thus seems likely that the majority of mildly retarded children in New Zealand (as in other countries) are in regular classes, though few, if any of these children would be receiving special educational provisions. At the present time there are approximately 3,800 mildly retarded children attending special classes in New Zealand schools (Department of Education, 1975).

Effectiveness of Special Classes

There have been many studies of the effectiveness of special classes for mildly retarded children. This research has been reviewed by Blatt and Garfunkel (1974), Bruininks and Rynders (1971), Cegelka and Tyler (1970), Guskin and Spicker (1968), Kirk (1964), MacMillan (1971), and Robinson and

Robinson (1976). As these authors have noted there are difficult methodological problems confronting researchers in this area. Many early studies involved comparisons between special class children and children of equivalent age and IQ in regular classes. Since children attending special classes are more likely than those in regular classes to have learning and behaviour problems prior to special class admission, the finding that mildly retarded children in regular classes tended to show superior achievement and adjustment (vis-à-vis those in special classes), may merely reflect initial intergroup differences. Other problems include the difficulty of assigning children to regular or special classes; the difficulty of controlling the length of time in special classes or the length and type of regular class experience prior to special class attendance; the lack of clear cut delineation of special class curricula or training of the special class teachers; and the difficulty of securing adequate evaluative (criterion) measures. In general most studies conducted to date have failed to demonstrate significant advantages (social or educational) from special class placement of mildly retarded children. This failure also characterizes the one study in this area in which most of the above methodological problems have been overcome (Goldstein, Moss, & Jordan, 1965). After four years there were notably few differences between children who remained in regular classes and those who had been randomly assigned to special classes and taught by highly trained specialists.

The majority of studies have shown that mildly retarded children who attend special classes do not achieve as well

academically as mildly retarded children who attend regular classes (e.g. Blackman, 1967, Guskin & Spicker, 1968). The justification for special class placement must therefore lie elsewhere. Perhaps special class attendance results in a facilitation of social development- an avowedly important aspect of special education for the mildly retarded. There have been a number of studies in this area which have been reviewed by Cegelka and Tyler (1970), Gardner (1968), and Lax and Carter (1976). Although most studies in this area are contaminated with one or more of the above-mentioned methodological problems (thus precluding straightforward interpretation of the results), it would seem that placement in a special class is no more beneficial for the social development of children than placement in a regular class, and indeed may even be deleterious. Goldstein, Moss, and Jordan (1965) found that children in special classes interacted less with their neighborhood peers than did similar IQ pupils in regular classes. Meyerowitz (1967) noted that while mildly retarded children are typically isolates in their neighborhood, regardless of their educational placement, special class attendance tended to hinder rather than to facilitate their peer group relationships. Similarly, Smart and Wilton (1975) found that the playground interaction of mildly retarded children was inhibited by special class placement. Moreover, research to date provides conspicuously little support for the contention that graduates of special classes are better off in terms of social and community adjustment than adults of equivalent ability who did not receive special educational provisions (Heber & Dever, 1972; Wilton & Cosson, 1977). In addition many writers have

commented on the adverse effects which labels such as "mentally retarded", and "mentally backward", typically have on the children concerned. It is agreed that such labels which are seemingly an inevitable consequence of placing a child in a special class, tend to result in differential reactions and lowered expectations from peers, teachers, and parents; lowered expectations by the child; increased self-derogation; and a lowering of self-concept (Barney, 1976; Blatt, 1972; Dunn, 1974; Johnson, 1969; Jones, 1972; Mercer, 1971; Richmond & Dalton, 1973). In general, therefore, there is little if any empirical support for the practice of placing mildly retarded children in segregated special classes, and indeed there is a growing body of evidence which indicates that such placement may well be undesirable for the children concerned (Albee, 1971; Centre for Law and Education, 1972; Hurly, 1968, 1971; Lilly, 1970; Ross, De Young, & Cohen, 1971). Despite this, special classes are still the most prevalent special educational strategy available to mentally retarded children in the United States, and special classes are virtually the only special educational provision for mildly retarded children available in New Zealand. It thus seems important to identify the factors which are responsible for childrens' admission to special classes.

A further reason why an analysis of such factors should be undertaken derives from the apparent terminal nature of special class admissions. Overseas studies indicate that once children are placed in special classes for mildly retarded children, they are unlikely to be returned to regular classes (MacMillan, 1969; Gallagher, 1972; Buss, 1975). Such

educational placement is generally viewed by teachers as definitive, and a return to the educational mainstream is seldom if ever a specified objective of such provisions. In the main, the relative irreversibility of placement seems to stem from an assumption that children placed in special classes are 'chronically' different from 'normal' children and special class placement is thus "admittedly perjorative (and) ought to be accompanied with very grave consideration for all consequences and alternatives" (Meyers, Sundstrom, & Yoshida, 1974, p.8). No information on the extent of readmission of New Zealand special class children to regular classes is available but it seems likely that the pattern would be comparable with that observed overseas.

Mainstreaming

At the present time, dissatisfaction with special classes is particularly widespread in North America, where following an extended series of legal suits and court mandates, many special class children are being returned to regular classes (Blatt, 1972; Reynolds, 1971; Reynolds & Balow, 1972; Thomas, 1972; Weintraub, 1972). And although the self-contained special class is still the most common special educational provision for mildly retarded children, the position is changing rapidly, with a variety of mainstreaming alternatives being offered in most parts of the United States, and in some parts legally enforced (Bruininks & Rynders, 1971; Keogh & Levitt, 1976). There have been very few studies of mainstreaming effects, however, and the findings to date tend to be inconsistent and somewhat inconclusive (Gickling & Theobald, 1975). Gampel, Gottlieb and Harrison

(1974) and Guerin and Szatlocky (1974) found that the greater the degree of integration which was attempted, the more 'normal' was the behaviour of low IQ pupils. Moreover a series of sociometric studies (Gampel, Gottlieb, & Harrison, 1974; Goodman, Gottlieb, and Harrison, 1972), revealed that low IQ children in an integrated program were rejected significantly less often than low IQ children in segregated special classes, and in a study by Haring and Krug (1975) it was found that low SES mildly retarded pupils who participated in a one year transition program acquired sufficient academic and social skills to allow their placement in a regular class, and that these gains were maintained after a year in a regular class. On the other hand, Monroe and Howe (1971) found that the amount of time mildly retarded junior high school pupils were integrated was negatively correlated with their acceptance by their regular class peers, and Iano, Ayers, Heller, McGettigan, and Walker (1974) observed that mildly retarded children were no better accepted by their peers in an integrated resource room than they were in a special class. Similarly Keogh and Levitt (1976) followed up a large group of special class students who had been returned to regular classes after changes in Californian state laws, and their findings were consistent with those from a similar study by Watkins (1975). In both studies it was found pupils who were replaced in the mainstream were rated by their teachers (who did not know of their previous educational placement) as doing less well academically, as possessing more social, behavioural and adjustment problems than their classmates, and as performing significantly below their regular class peers on a standardized test of achievement,

even when the behaviour of their peers was below average. Whether they were placed in regular or special classes appeared to make very little difference to their performance, although no doubt the early segregated educational experiences of the reintegrated pupils would have a sizeable influence on their later performance in regular classes - a factor which would not arise with low IQ children who had been retained in regular classes from school entry. A number of methodological difficulties, similar to those which characterize most special class evaluation studies cloud the interpretation of the findings in this area. One factor which would seem of central importance, but to date has not been taken into account, is the characteristics of the teacher or teachers involved in the mainstream provisions.

Most mainstreaming provisions place most, if not all responsibility for the progress of low IQ children on the regular class teacher. It is probable that teacher attitudes and characteristics are important determinants of the extent to which low IQ children are placed in special classes, and it seems even more likely that they will be crucial in determining the success or otherwise of mainstreaming. Probably there are wide differences between teachers in the number and variety of problems they can cope with in the classroom, and it seems likely that some teachers and some schools are more competent in dealing adequately with low IQ children than others. The fact that teacher/situational variables have not been controlled in the majority of studies concerned with the effectiveness of special class placement or mainstreaming may well have been responsible, at least in part, for the lack of coherent

results to date. Indeed it seems the benefits or otherwise of segregated special class placement or mainstreaming cannot be specified without an awareness of the teacher and situational factors involved in the initial transfer of children from the educational mainstream.

Teacher Characteristics and Mainstream Special Educational Provisions

If mildly retarded children are to be retained in regular classes as a deliberate policy, the attitudes of the teachers involved seem likely to be of central importance. In particular, a climate of acceptance of mildly retarded children by class teachers would seem to be a sine qua non of mainstream special educational strategies. Teachers, however, probably have the same biases, prejudices, and misconceptions about disabilities as their fellow citizens, and while few studies have been concerned with the attitudes of teachers toward the mentally retarded, there is abundant evidence that negative stereotypes towards the mentally retarded are widely held by the general public (Guskin, 1973; Hollinger, & Jones, 1970; Jones, 1972; Meyers, Sitkei, & Watts, 1966). In this connection Cruickshank (1974) has cautioned that indiscriminate integration of exceptional children into regular classrooms will often bring such children into contact with hostile teacher attitudes - attitudes which are likely to be quickly shared by other pupils. It is interesting to note that educators who are most distant from pupils (administrators, principals, etc.), have more positive attitudes towards mainstream provisions, and that the actual teachers in the classrooms showed the

highest rate of negative attitudes towards such provisions (Barngrover, 1971; Guerin, & Szatlocky, 1974). Moreover teachers who have had experience of mildly retarded children in their classes within mainstream special educational programs tend to become pessimistic regarding the success of such programmes even though they felt more competent to accommodate such children and supportive services were provided (Alper, & Retish, 1972; Shotel, Iano, & McGettigan, 1972). The teachers' negative evaluation of these programmes may of course reflect the inadequate support and guidance they received as well as the possible pedagogical bankruptcy of such programmes (in terms of specified content). Optimal education, however, requires more than just the placement of mentally retarded children within regular classes, and is unlikely to achieve a great deal unless factors outside the child are taken into consideration.

Meisgeier (1965) identified five factors which predicted successful special class teachers of mentally and physically handicapped children, and differentiated them from unsuccessful teachers; attitudes towards children, intelligence, emotional stability, energy, and responsibility. It seems likely that such factors would also differentiate successful and unsuccessful teachers of mildly retarded children in mainstream provisions. An additional problem has been noted by Martin (1974) who observed that teachers, principals and teacher-aides who mainstream low ability children are often anxious because of their lack of experience of such children. In this connection, Efron and Efron (1967) found that special class teachers of the mildly retarded, in comparison with regular class teachers, student teachers, and the general

public, were less authoritarian, more accepting of intimate contact with the mentally retarded, more inclined to ascribe causes of mental retardation to cultural impoverishment, and possessed more factual information about mental retardation. The regular class and student teachers did not differ from the general public on any of these measures. It seems probable that teachers who have been made aware of the special educational needs of mildly retarded children, and have been given the opportunity for enjoyable contact with them (Vurdelja-Maglajlic, & Jordan, 1974), would be more likely to develop favourable attitudes towards mildly retarded children, would feel more adequate in coping with them in mainstream programmes, and would also be less likely to request their transfer from a regular to a special class.

While teachers' attitudes towards mentally retarded children are most likely a crucial determinant of the success or otherwise of mainstream special educational provisions, the teachers competency to undertake such provisions is likely to be equally important. McGinty and Keogh (1975) found considerable agreement among regular class teachers about what they believed they should know in order to teach exceptional children in mainstream provisions, but almost unanimous agreement that they did not have such knowledge. If teachers of mildly retarded children in regular classes are not given adequate preparation and support, they are unlikely to cope adequately with mildly retarded children in mainstream special educational programmes, and they will probably be more likely to refer such children for special class placement.

Factors Influencing Special Class Placement

It is noticeable that in most parts of North America and in all parts of New Zealand, segregated special classes are virtually still the only special educational provision made available to mildly retarded children, even though a sizeable body of research has failed to detect any significant advantages for mildly retarded children in such a strategy, and despite a growing body of literature which indicates that special classes may indeed be undesirable for the children concerned. It seems likely that special classes may fulfil a very real need in the education system. Such classes may provide a means whereby teachers who are unable or unwilling to cope with low ability children, can have them removed from their classes. If this is so, such teachers are hardly likely to welcome any change towards mainstreaming provisions. Indeed, the movement towards mainstream provisions for mildly retarded children in North America has underlined the importance of the characteristics of the teacher as a determinant of special educational programme effectiveness, and it seems likely that teachers who prefer to have low ability children transferred to special classes would be unwilling and/or unable to accommodate such children in mainstream provisions. It therefore seems important that the reasons why children are transferred to special classes are delineated, and in particular the possibility that teacher characteristics are involved in such transfers should be examined.

In spite of the growing recognition that factors 'outside' the child (e.g., teacher attitudes and personality) as well as the specific attributes of the child are probably

responsible for the differential educational placement of low ability children (MacMillan, Jones, & Aloia, 1974; Rubin, Krus, & Balow, 1973; Tizard, 1974; Valletuti, 1969), few studies have investigated teacher and school factors that may be responsible for teacher referral and possible special class placement of such children. The identification and labelling of mildly retarded children is almost exclusively the business of public schools (Mercer, 1973; Robbins, Mercer, & Meyers, 1967). Indeed, most mildly retarded children function adequately outside of the school situation (President's Committee on Mental Retardation, 1970). The class teacher, particularly in the first four years of school, is the primary source of referral of low IQ children for special class placement (Dingman, 1973; Keogh, 1972; Lilly, 1975; MacMillan, 1971; Mercer, 1973). The regular class teacher thus appears to be the most crucial factor in determining whether or not a low IQ child will be referred for placement in a special class. If the teacher does not perceive the child as behaviourally deviant and/or too difficult to cope with in a regular class, and does not initiate formal evaluation proceedings, it is unlikely that the child will be labelled as retarded and placed in a special class.

Traditionally, psychoeducational assessment in connection with the special educational placement of slow learning children has been almost exclusively child oriented. The failure that has occurred has usually been assumed to be in the child (Keogh, 1972; Lilly, 1975; MacMillan, Jones, & Meyers, 1976; Meyers, Sundstrom, & Yoshida, 1974). Probably the most widely recognized definition of mental retardation

is that offered by the American Association on Mental Deficiency (Grossman, 1973). This definition stresses that a low level of intellective functioning as well as impaired adaptive behaviour must be present before a child can be declared mentally retarded. In practice, however, it is not possible to specify the extent of adaptive behaviour impairment required for special class placement, and level of intelligence is very often the only factor taken into consideration for such placement (Clausen, 1967; Mercer, 1973). A low level of adaptive behaviour is generally assumed by psychologists if a teacher has felt it necessary to refer a low IQ child for special class placement. Although a low level of intellective functioning is the major criterion for special class placement, it is noticeable that a large proportion of children within the IQ range considered appropriate for special classes do not attend such classes (McCartin, Dingman, Meyers, & Mercer, 1966; Meyers, 1973). It thus seems likely that factors outside the child are involved in the differential educational placement of low IQ children. Teacher and school factors which determine whether or not, or on what terms children will be referred to the school psychologist, have been shown to affect both the diagnosis and the placement decision that is made (Meyers, 1973). In a study by Hersch (1969) examiners were randomly assigned biased referral forms which indicated a teachers estimate of a child's competence (i.e. biased either high or low), and were then required to administer an individual test of intelligence. The children with negative referral data were given significantly lower IQ scores than children with positive referral data. In addition Mercer

(1973) noted that children who met the usual intellectual and behavioural criteria for special class placement were significantly more likely to be recommended for such placement by psychologists if the teacher who had initiated the referral had asked specifically that the child be evaluated for special class placement. It would thus appear that the teacher's initial recommendation that a child be placed in a special class has a sizeable influence on the psychologist's decision. It also seems likely that teacher attitudes and beliefs also influence the type of educational provision that is made for low IQ children.

A study by Mercer (1973) seems relevant in this connection. It was found that 64 percent of children with IQs below 80, who had been tested by school psychologists, were subsequently recommended for special class placement. White, English speaking children; children of higher SES; and children who had been referred for some reason other than special class placement, were significantly less likely to enter a special class. The average IQ of the children not recommended for placement was not significantly higher than that of the children who were recommended for special classes, and one fifth of this group had IQs below 64. It would seem that IQ is not the only factor taken into account when the placement of low IQ children in special classes is contemplated.

The contention that factors other than a child's intellectual and behavioural characteristics influence the probability of his being recommended for admission to a special class, also receives support from a study by Ashurst, and Meyers (1973) who investigated the actual placement or

non placement of children diagnosed by psychologists to be mildly retarded. Two thirds of those deemed eligible for special class placement were retained in regular classes. Whether or not a child was transferred to a special class after teacher referral seemed relatively independent of intelligence level, ethnicity, or sex, and while the child's behavioural characteristics were often a determining factor in the placement decisions, more than half of the children who showed conduct/behaviour disturbances were not subsequently admitted to a special class.

School factors have been shown to be responsible for differential referral rates of mildly retarded children irrespective of the characteristics of the child. Robbins, Mercer, and Meyers (1967) found referrals from 22 elementary schools with a total enrolment of 12,326 pupils to the same psychological service ranged from 2-3 percent for some schools to 15 percent for others. The differential referral rates were found to be due to differences in school size and principals' attitudes. Larger schools referred proportionally fewer pupils than smaller schools because the same amount of psychologists time was available irrespective of the size of the school. It was found that principals had different attitudes towards the pscyhological service and different role concepts, and were differentially responsive to teachers' requests. Some principals tried to obtain all the help that was available from school psychologists, whilst others did not refer children because they viewed such referrals as an expression of their inability to cope with such children. It is possible of course, though the point is not examined by the authors, that the principals

may have held different beliefs about the appropriateness of the special classes in this area.

Further evidence of the role of school factors in special class placement decisions emerged from a study by Meyers (1971). The incidence of pupils in special classes computed in six adjacent Californian school districts, each of which served similar areas in terms of demographic characteristics, was found to vary widely (range 0.8% - 3.1%) and it was concluded that the differential incidence reflected district philosophies, practices, and observances of the law, rather than differences in the number of mildly retarded children actually enrolled in the schools.

Few studies have been focused on the specific factors involved in special class placement decisions. Hannaford, Simon and Ellis (1975) examined the criteria used by psychologists, regular class teachers, special class teachers, and educational administrators, to determine the eligibility for special classes of a hypothetical group of 25 children. Chronological age, and reading and arithmetic achievement data appeared to be the most important decision variables, and it is interesting to note that psychologists did not appear to rely exclusively on IQ as a basis for special class placement decisions. The results of this study may be of limited external validity, however, since the artificial nature of the study seems obvious, especially in terms of the hypothetical, and in some cases conflicting and inadequate data given to raters (e.g., no information on sociological or personality factors was included).

Ross and Salvia (1975) examined the influence of facial attractiveness and sex of subjects on teachers' willingness

to recommend special class placement and on their judgement of the subjects' future school related behaviour. Identical, but fictitious psychological reports of eight year old boys and girls were prepared. The reports presented evidence of low achievement in reading and arithmetic, low intelligence (IQ=78), some evidence of immaturity, but no mention was made of any behaviour problems. Attractive or unattractive photographs were attached to the reports and they were randomly assigned to two groups of elementary school teachers. One group received an attractive photograph with a particular report, while the other was given an unattractive photograph. While there were no significant sex differences, the results indicated that the teachers systematically rated attractive children more favourably than they did unattractive children. They also held lower expectations for the future academic and social development of unattractive children, and they were more willing to recommend that unattractive children be placed in special classes. The results of this study indicate that a sizable degree of subjectivity may well be involved in the assessment of children as suitable for special class placement by teachers. At the same time, there is a large difference between a pupil with whom a teacher has interacted, and a hypothetical child. It may well be that the artificial nature of the decision making in this study precluded the operation of factors which typically influence teachers' decisions in the classroom.

A longitudinal investigation of factors associated with special class placement was conducted by Rubin, Krus and Balow (1973). A comparison was made between children in the 50-80 IQ range who were eligible for special classes but

were retained in regular classes and children placed in special classes for mildly retarded children. Measures of socio-economic status (SES), a variety of achievement measures (some obtained prior to school entry) and teacher ratings of behaviour were incorporated. SES was the only variable that significantly differentiated the low IQ children in regular classes from those placed in special classes. This finding seems consistent with the results of a number of other studies which have indicated that children of low SES status are more likely than those of higher SES to be either recommended for placement in, or transferred to a special class when IQ and achievement levels are held constant (Mercer, 1973; Neer, 1973; Rowitz, 1973).

The fact that some low ability children are referred for placement in special classes while others of apparently equivalent ability are not, may reflect differential personality characteristics on the part of the regular class teachers. Gottlieb (1969) found that well adjusted Norwegian children were more tolerant of mildly retarded children in special classes than were poorly adjusted children. It seems equally likely that teachers who are poorly adjusted are more likely to be hostile and/or rejecting towards low IQ children in their classes and are more likely to seek special class placement for such children, than teachers who are better adjusted. It also seems probable that teachers differ considerably in their tolerance for deviance (MacMillan, Jones, & Aloia, 1974) but to date the possibility of a link between the personality characteristics of teachers and their tendency to refer low IQ children for placement in special classes or to retain them in the mainstream has not

been examined.

In brief, the majority of studies that have examined the factors which influence the differential educational placement of mildly retarded children have been concerned with factors 'within' the child or with the degree of consensus between professionals on the criteria used to determine these factors. It seems probable, however, that some factors 'outside' the child are also involved in special educational decisions involving low IQ children. A small number of studies have been focused on the situational determinants of referral and placement but, to date no studies have been concerned with teacher characteristics and attitudes which may be involved in this process. It seems likely that regular class teachers have a major influence on the extent to which children are labelled as deviant and placed in segregated special classes or are retained in regular classes with their 'normal' peers. It seems important to determine the extent to which teacher factors are influential in the differential educational placement of children, over and above the intellectual and/or behavioural characteristics of the children, and if so, to delineate these factors. Such information seems essential if special classes or mainstreaming provisions are to be assessed meaningfully. The reasons why a child has entered a special class including the possibility of teacher rejection must be incorporated in the planning and evaluation of special educational strategies. Indeed, unless the attitudes of regular class teachers are taken into account, the possibility seems remote that mainstreaming will become a viable special educational alternative. In

the present study an attempt was made to determine whether the characteristics, personality, or attitudes of regular class teachers were involved in the referral and possible special class placement of mildly retarded children.

Experimental Hypotheses

Most mildly retarded children in New Zealand probably attend regular classes, and no special educational provisions are made for them. At the same time, nearly 4,000 children attend special classes in New Zealand schools. No studies of the effectiveness of New Zealand special classes have been undertaken, but overseas research has yielded a conspicuous lack of documented advantages for the children concerned, and a steadily growing body of evidence indicates that special class attendance may aggravate the social difficulties of mildly retarded children. Despite such findings, however, special classes still tend to be by far the most common special educational provision available for such children in New Zealand. It seems important to determine the factors which lead some children to be placed in special classes and others of equivalent ability to remain in regular classes particularly in view of the relative irreversibility of such placement, and it seems probable that teacher characteristics are involved in such educational distinctions. Although in recent years there has been a rapid growth of mainstream special educational provisions for mildly retarded children in North America evaluations of such provisions have highlighted the importance of the characteristics of the teacher as a determinant of programme effectiveness. If the reasons why children are placed in

special classes have not been delineated and taken account of, and if, as seems likely, teacher factors are involved, mainstream programmes are unlikely to accommodate the special educational needs of the children concerned.

Few studies have focused on the role of teacher characteristics in special class placement decisions, but on the basis of research to date in this area, it seems likely that teacher characteristics (attitudes, experience, qualifications, attitudes to special classes and mainstream alternatives for mildly retarded children, etc.) and classroom factors (size of class, proportion of children in the class with learning difficulties etc.) would differentiate teachers of children who are transferred to special classes, from teachers who have children who are eligible but not referred for special class placement, or from teachers of children who are eligible for special class placement, but have remained in regular classes following their referral. Accordingly the following non-directional hypotheses were formulated:

> Hypothesis 1.1 Teachers who have children eligible for special classes but have not referred them for special class placement will differ in terms of their personal and classroom characteristics from teachers of children who have been transferred to a special class.

Hypothesis 2.1 Teachers who have children eligible for special classes but have not referred them for special class placement will differ in terms of their personal and classroom characteristics from teachers of children who are referred for special class placement but not transferred even though subsequent psychological assessment confirms their suitability for special class placement.

Hypothesis 3.1 Teachers of children who are referred for special class placement but not transferred even though subsequent psychological assessment confirms their suitability for special class placement, will differ in terms of their personal and classroom characteristics from teachers of children who have been transferred to special classes.

It also seems likely that differences in the attitudes of school principals may be partly responsible for the differential educational placement of low IQ children (Robbins, Mercer, & Meyers, 1967; Milofsky, 1974). Any attempt by a New Zealand teacher to refer a child to the School Psychological Service for special class placement, requires the consent of the principal, and in the case of a child in the junior school, of the Supervisor of junior classes (STJC). Consequently, the attitudes of principals and STJCs towards

special classes or mainstream provisions for low ability children were thought to be potentially significant variables in determining the type of educational provisions received by low IQ children. Accordingly the following nondirectional hypotheses were formulated:

Hypothesis 1.2 Principals of children who are eligible for special classes but have not been referred for special class placement by their teachers, will differ in their attitudes to special class placement/mainstreaming from principals of children who have been transferred to special classes.

Hypothesis 1.3 STJCs of children who are eligible but have not been referred for special class placement by their teachers, will differ in their attitudes to special classes/mainstreaming from STJCs of children who have been transferred to special classes.

Hypothesis 2.2 Principals of children who are eligible for special classes but have not been referred by their teachers, will differ in their attitudes to special classes/mainstreaming from principals of children who have been referred for special class placement but not transferred even

though subsequent psychological assessment confirms their suitability for special class placement.

Hypothesis 2.3 STJCs of children who are eligible for special classes but have not been referred for special class placement by their teachers, will differ in their attitudes to special classes/ mainstreaming from STJCs of children who have been referred for special class placement but not transferred even though subsequent assessment confirms their suitability for special class placement.

Hypothesis 3.2 Principals of children who have been referred for special class placement but not transferred even though subsequent psychological assessment confirms their suitability for special class placement, will differ in their attitudes to special classes/mainstreaming from principals of children who have been transferred to special classes.

Hypothesis 3.3 STJCs of children who have been referred for special class placement but not transferred even though subsequent

psychological assessment confirms their suitability for special class placement, will differ in their attitudes to special classes/mainstreaming from STJCs of children who have been transferred to special classes.

CHAPTER THREE

METHOD

General design

Special educational provisions for mildly retarded children are available in most parts of New Zealand. In such areas children are admitted to special classes only if they score within the 50-80 range on an individual test of intelligence (administered by a school psychologist) and if their special educational needs cannot be effectively met in regular classes (Department of Education, 1958). Children are not admitted to special classes until the age of seven years and the majority of special class entrants are seven or eight years old. Consequently, for most children of 50-80 IQ the decision which determines whether or not they will attend a special class, is made when they are seven or eight years of age.

While it is widely assumed this decision is based on factors 'within' the child (intellectual abilities, behavioural characteristics, etc.) many writers have speculated that factors 'outside' the child (e.g., the attitudes, beliefs and self-perceived teaching competence of the teacher, the size of the class, and the behavioural characteristics and abilities of other pupils in the class) are equally if not more involved in such decisions. In the present investigation an examination was made within Christchurch public schools, of the possibility that factors 'outside' the child (teacher and classroom characteristics) differentiate seven and eight

year old children of 50-80 IQ who have never been referred for special class placement (N-R) from children of equivalent age and ability who have been admitted to primary special classes (S-C). The comparison between these two groups (Study 1) is the major focus of the present investigation.

An analysis of Christchurch School Psychological Service case records during the course of Study 1, also yielded a group of children of approximately equivalent age to those in the S-C and N-R groups, who had shown general learning problems and had been referred by their teachers to the School Psychological Service, but had not subsequently been transferred to special classes although their IQs were within the 50-80 range. According to the records, none of the parents of this group had either refused consent for special class placement or expressed their preference for regular class retention, and at the time the decisions were made there were an adequate number of special class places to accommodate these children. The possibility therefore arose that the factors which differentiated the S-C and N-R groups may also differentiate this group of regular class low IQ children (R-SC) from the other two groups, and an examination was made of this possibility (Study 2). There were, however, a number of difficulties associated with the data on the R-SC group. In particular, the placement decisions had been made long before the group was located. In most cases the decisions had been made about one year prior to location of the group, but some of the subjects had been tested as long as three years before the study was undertaken. In view of the markedly retrospective nature of much of this data it seemed prudent to separate Studies 1

and 2. Study 2 thus involved comparisons between the R-SC and SC groups and between the R-SC and the N-R groups, using the same variables employed in Study 1.

Subjects

The subjects were 48 seven and eight year old children (25 boys and 23 girls) attending state primary schools in the Christchurch urban area. Three groups were selected from 37 schools. These comprised 16 children (7 boys and 9 girls) with IQs within the 50-80 range who were in regular classes and who had never been referred to the school psychological service (N-R); 16 children (9 boys and 7 girls) who had been attending special classes for mildly retarded children (S-C) since the beginning of the current school year; and 16 children (9 boys and 7 girls) with IQs in the 50-80 range who had been referred to the School Psychological Service for general learning problems but had not been placed in special classes (R-SC).

The N-R group was selected from pupils of Christchurch primary schools. Six areas of metropolitan Christchurch which had the highest referral rate to the School Psychological Service were selected for the initial screening. Eighteen schools were selected at random within these areas, and subsequently a total of 2,375 children were administered the Draw-a-person Test (Goodenough-Harris, 1963). All children who scored at or below IQ 85 on this test (N=110) were individually administered the Slosson Intelligence Test (Slosson, 1971). This test correlates highly (r=0.95) with the Stanford-Binet (Sattler, 1975) but can be administered in approximately half the time. Sixteen children scored

within the 50-80 IQ range and were included in the N-R group.

The S-C group was selected from all seven and eight year olds (N=21) with no apparent organic defect who were admitted to Christchurch primary school special classes during the first six months of 1976. Of the original 21 children, three were excluded from the study because the teachers who had referred them were overseas and could not be located, one child had an obvious organic defect, and one was referred from a private school. The S-C group thus comprised the remaining 16 children.

The R-SC group comprised 16 seven and eight year old children (9 boys and 7 girls) attending state primary schools in the Christchurch urban area. Subjects for this group were selected from the School Psychological Service records of all seven and eight year old children with IQs within the 50-80 range and no obvious organic defect, who were referred to the School Psychological Service from Christchurch public schools because of their general learning difficulties. A total of 18 children had met the admission requirements for special classes but their admission to special classes had not been recommended and subsequently they had been retained in the regular classes from which they had been referred. One teacher of a child in this group refused to participate in the study and one teacher could not be located. The R-SC group thus comprised 16 children.

Socio-economic ratings on all subjects in terms of the levels of the fathers' occupations and incomes were obtained using a scale derived from New Zealand socio-economic census data (Elley & Irving, 1976) and are presented in Table 1. Descriptive data on intelligence (Stanford-Binet or WPSSI IQs

Table 1

Data on Intelligence (IQ), Chronological Age (CA)* and Socio-economic Status (SES)+ for N-R, R-SC and S-C Groups

GROUP			IQ	CA	SES
N-R					
Children in regular classes not referred	boys	(N = 7) $\bar{X}$	72.43	99.71	4.28
		sd	8.66	4.23	0.95
	girls	(N = 9) $\bar{X}$	76.22	97.00	4.11
		sd	2.27	7.34	1.05
	total	(N =16) $\bar{X}$	74.56	98.18	4.19
		sd	6.04	6.15	0.98
R-SC					
Children referred but not placed in special classes	boys	(N = 9) $\bar{X}$	73.77	106.44	4.44
		sd	4.30	5.70	1.13
	girls	(N = 7) $\bar{X}$	71.14	111.86	4.00
		sd	6.12	9.11	1.00
	total	(N =16) $\bar{X}$	72.62	108.81	4.25
		sd	5.16	7.63	1.06
S-C					
Children attending special classes	boys	(N = 9) $\bar{X}$	62.33	96.44	4.78
		sd	8.51	10.14	1.48
	girls	(N = 7) $\bar{X}$	69.00	95.57	4.86
		sd	2.94	4.79	0.90
	total	(N =16) $\bar{X}$	65.25	96.06	4.81
		sd	7.33	8.01	1.22

* age in months

+ scores range from high =1 to low =6

in the case of S-C and R-SC groups) and age are also presented in Table 1.

Since most New Zealand primary school teachers are women (Department of Education, 1976) and since it is probable that relatively few male teachers are involved in the junior school (infants-Std.2) it was expected that most of the teachers in Studies 1 and 2 would be women. Consequently sex of teacher was not planned as a dependent variable. While the predicted pattern did characterize the teachers of Studies 1 and 2, a slightly higher proportion of male teachers were encountered in the N-R group than in either of the other groups. The greatest difference (N-R vs S-C) was not significant, however ($N\text{-}R\underline{\%}=0.25$, $S\text{-}C\underline{\%}=0.06$; $z=1.34$, $p<.16$), and sex of teachers was not incorporated as a dependent variable measure.

Teacher Characteristics Inventory

The Teacher Characteristics Inventory (TCI) was devised to secure descriptive data on the teachers (e.g. age, experience etc.), their attitudes toward and assessment of the subjects, and their beliefs regarding their competency to accommodate the subjects in their classes. (A copy of the TCI is listed in Appendix E). Section A of the TCI dealt with the descriptive statistics of the teacher (Tables 2 & 3). Details were requested on age, sex, marital status, parental status, academic qualification, and number of years teaching.

Section B of the TCI focused on the teachers' attitudes toward and assessment of the subjects. Likert scale ratings were requested (Items 1-10) on the child's academic achievement, physical appearance, personal hygiene and

Table 2

Data on Sex, Marital Status, Parental Status and Age of Teachers

Group	Sex	Marital Status		Parental Status		Age in years			
		Married	Single	Parent	Not-parent	25 or less	26-35	36-45	45 or more
N-R									
	Males (N=4)	6	-	4	2	2	-	2	2
	Females (N=12)	8	2	2	8	4	4	1	1
R-SC									
	Males (N=2)	1	1	1	1	1	1	-	-
	Females (N=14)	11	3	6	8	6	2	4	2
S-C									
	Males (N=1)	-	1	-	1	1	-	-	-
	Females (N=15)	6	9	3	12	4	2	5	4

Table 3

Data on Numbers of Years Teaching Experience and Qualifications of Teachers

Group	Sex	Years Teaching Experience				Qualifications*		
		1	2-5	6-9	10	TT	Dip	Univ. Degree
N-R								
	Males (N=4)	2	0	1	3	2	1	3
	Females (N=12)	-	6	3	1	9	1	-
R-SC								
	Males (N=2)	-	2	-	-	1	1	-
	Females (N=14)	-	-	11	3	9	4	-
S-C								
	Males (N=1)	-	4	2	9	1	-	-
	Females (N=15)	-	1	-	-	13	2	-

*TT = Trained teachers certificate, Dip. = additional diploma, Univ. Degree = University degree

attractiveness, behaviour toward the teacher and peers, and popularity with peers; the teachers' feelings about the child; parental support received by the child and parental attitudes to special classes. On Item 11 teachers were asked whether or not any other members of the subjects family had attended a special class.

The ten Likert scale items in Section C were designed to yield an indication of the teachers' beliefs regarding their adequacy (in terms of their personal teaching competency and the adequacy of their school situation) to accommodate the subjects in their classes. Teachers were also asked to rate (on the basis of school records) the composition of their class (in terms of behaviour and achievement) at the time the subject was referred, whom they thought were low achievers (i.e. who would score 4 or 5 on a 5 point scale, where 1=high and 5=low, in reading and arithmetic) and the proportion of children in their class whom they thought were behaviour problems. The teachers of the N-R children were also asked to rate the composition of their classes on these characteristics as at July 1, 1976. A score for each subject was obtained by scaling the teacher ratings of the proportion of low achievers and of behaviour problems for each of four categories: a) no more than three children in the class were low achievers/behaviour problems, b) approximately ¼ of the class were low achievers/behaviour problems, c) approximately ½ of the class were low achievers/behaviour problems, d) approximately 3/4 of the class were low achievers/behaviour problems.

Section D of the TCI requested teachers to rate the amount of contact they had had with special classes, the frequency

with which they had referred children with learning problems to the School Psychological Service, and their principal's attitude towards special classes.

In view of the large number of potential dependent variable measures deriving from the TCI (and the relatively small size of the sample) an attempt was made to reduce the dimensionality of the sets of items in Section B and C. (Since less than one third of the teachers answered item 10 - Section C it was not included in the analyses, and hereafter item 11 will be referred to as item 10). In each case, the responses were subjected to principal components analysis (without iteration) and factor scores were derived for each subject following the approximation procedures recommended by Gorsuch (1974). For Section B items, two factors with eigenvalues greater than 1.0 emerged (Table 4). The maximum loading for each item on these factors was determined, and the item was regarded as measuring that particular factor. Items 1,2,3,4, 5,6,8 and 9 had their maximum loadings on Factor 1 which was labelled (ADEQUACY), while items 7 and 10 loaded on Factor 2 which was labelled (ISOLATION). The principal components analysis of Section C (Table 5) yielded three factors: Factor 1, which was labelled 'perceived competency and situational effectiveness' (PSE)- items 2,3,4,5,6 and 7; Factor 2, which was labelled 'training and equipment' (T-E)- items 1 and 9; Factor 3, which was labelled (IMPEDE)- item 8.

Principal and STJC Attitude Inventory

It seemed probable that the supervising teacher of junior classes (STJC) as well as the principal of a primary school would also very often be influential in deciding whether or

Table 4

Principal Components Analysis of TCI (Section B) Items* on First Two Factors

TCI Items	Factor 1	Factor 2
1	673	478
2	777	-217
3	867	-058
4	845	178
5	689	-348
6	757	-004
7	495	738
8	798	-261
9	734	-415
10	276	494
Eigenvalue	5.065	1.461
Percentage of Variance	50.6	14.6

*Decimals have been omitted

Table 5

Principal Components Analysis of TCI (Section C) Items* on First Four Factors

TCI Items	Factor 1	2	3	4
1	-243	-594	531	-036
2	-594	507	125	-232
3	-493	443	360	-345
4	616	-409	387	314
5	-650	-493	-067	291
6	-646	-130	-466	172
7	-637	-519	-197	-083
8	410	-325	-132	-541
9	408	446	-285	360
10	-422	372	373	443
Eigenvalue	2.794	1.945	1.075	1.013
Variance Contribution	27.9	19.5	10.8	10.1

*Decimals have been omitted

not a child would be referred to the School Psychological Service. The Principal and STJC Attitude Inventory (PSAI) was therefore devised to provide information on the principals' and STJCs' attitudes, beliefs and knowledge regarding special class and mainstream educational provisions for low IQ children. The PSAI contained nine attitude scale items each of which was scored on a five point Likert scale ranging from 1(=strongly agree) to 5(=strongly disagree), and a dichotomous (yes/no) item on whether or not they were generally in favour of special classes. Scores on Items 3,4, 5,7, and 9 were reflected (i.e., a score of 1 was changed to a score of 5, and a score of 2 was changed to a score of 4, etc.). High scores on these measures thus reflect favourable attitudes toward mainstreaming and conversely low scores reflect unfavourable attitudes. The attitude inventory also required information on the degree of contact the principals and STJCs had had with special classes, their frequency of referral to the School Psychological Service and their knowledge of the extent to which special class pupils are returned to regular classes. Since there were no other data on principals and STJCs it did not seem necessary to reduce the dimensionality of PSAI measures prior to data analysis, and no factor analyses were undertaken on these scores. A copy of the PSAI is listed in Appendix F.

IPAT-16PF Personality Questionnaire

Form A of the IPAT Sixteen Personality Factor Questionnaire (Cattell & Eber, 1964) was used to secure data on the personality characteristics of all teachers in the study. An attempt was made to minimize any possible teacher anxiety the

commercial title of the scale might have induced by the substitution of the title 'Attitude and Interest Inventory'.

Raw scores on each of the sixteen primary factor dimensions (A, B, C, E, F, G, H, I, L, M, N, O, Q1, Q2, Q3, and Q4) were converted to sten scores (Cattell & Eber, 1964). Two second order factors, anxiety and extraversion were also obtained according to the procedure recommended by Cattell and Eber. The anxiety factor scores were obtained by a combination and weighting of factors, C, H, L, O, Q3, and Q4, and scores of extraversion by a combination and weighting of factors A, E, F, H, and Q2. The two second order factors were expressed as sten scores.

Procedure

The teachers, principals and STJCs of the S-C and R-SC groups at the time of their referral to the School Psychological Service, were located from data in Psychological Service files and Canterbury Education Board staffing records. The teachers, principals and STJCs of the N-R subjects were contacted following the identification of the N-R group. All teachers, principals and STJCs were contacted during a two-week period in July 1976.

A copy of the Teacher Characteristics Inventory (TCI) and the IPAT-16PF Personality Questionnaire, was delivered personally to all teachers, and the Principal and STJC Attitude Inventory (PSAI) was given to the principals and STJCs. The teachers, principals and STJCs were informed that the study was concerned with the activities of the psychological service. Before the inventories and questionnaires were delivered to the S-C and R-SC teachers a check was made to

ensure that they remembered the child to whom the questions related. The confidentiality of their responses was stressed, and the necessity for them to refrain from discussing the items with anyone else before the materials were collected was emphasized. The teachers, principals and STJCs were asked to seal the completed inventories/ questionnaires in the envelopes provided, and these were collected from the schools two days after they had been delivered. One teacher declined to fill in the IPAT-16PF and was subsequently discarded from the study.

Dependent variable measures

Unless specified otherwise, the following dependent variable measures for N-R children refer to their class/ school/teacher etc. as at July 1, 1976. In the case of S-C and R-SC children, however, the variables refer to the class/school/teacher etc. at the time of their referral to the school psychological service.

Class/school statistics:

Size of class (CLASS SIZE)- the total number of pupils in the subject's class.

Proportion of low achievers (LOW-ACHV)- the proportion of pupils in the subject's class who were rated by the class teacher as being 'low achievers'. Scores were expressed in terms of a four point scale (1= no more than three children in the class were low achievers; 2= approximately ¼ of the class were low achievers; 3= approximately ½ of the class; 4= approximately 3/4 of the class).

Proportion of behaviour problems (BEHV-PROB)- the proportion of pupils in the subject's class who were rated

by the class teacher as being 'behaviour problems'. Scores were expressed in terms of a four point scale (1= no more than three children in the class were behaviour problems; 2= approximately ¼ of the class; 3= approximately ½ of the class; 4= approximately 3/4 of the class).

School size (SCHOOL SIZE)- the total number of children attending the subject's school (according to official Canterbury Education Board records) at February 1, 1976.

Teacher characteristics:

Marital status (MARITAL)- the marital status of the subject's teacher expressed in terms of a dichotomy (1= married, 0= not married).

Age (AGE)- the age of the subject's teacher. Scores were expressed in terms of a four point scale (1= under 26 years of age; 2= within the age range 26-35 years; 3= 36-45 years; 4= 46 years and over).

Parental status (PARENT)- the parental status of the subject's teacher expressed in terms of a dichotomy (1= parent, 0= nonparent).

Time teaching (EXPERIENCE)- the length of time in years that the subject's teacher had taught since certification as a qualified teacher.

Academic qualifications (QUALIFICATIONS)- the academic qualifications of subject's teacher, expressed in terms of a three point scale. (1= Teachers Certificate; 2= Teachers Certificate plus an additional diploma; 3= Teachers Certificate plus a university degree).

Contact with special classes (CONTACT SC)- the degree of contact the subject's teacher had had with special classes,

scores were expressed in terms of a three point scale: 1= the teacher had taught in a school which contained a special class or had taught a special class; 2= the teacher had been on teaching section in a school which contained a special class or had visited a special class; 3= the teacher had only read about special classes or knew very little or nothing about them.

Frequency of referral to the Psychological service (REFERRALS)- the frequency with which the subject's teacher had referred children with learning problems to the School Psychological Service. This variable was scored as follows: (2= teacher quite often or frequently referred; 1= rarely or occasionally referred; 0= never referred).

Principal's attitudes to special classes (PRINCIPAL)- an estimate by the subject's teacher of whether the principal in his/her school was in favour of special class placement for low IQ children (score=1) or not (score=0).

Teacher's 16PF Anxiety score (ANXIETY)- a measure of the level of anxiety (according to 16PF responses) of the subject's teacher, in terms of Cattell and Eber's (1964) suggested combination of primary factor scores: C, H, L, O, Q3, and Q4 on the IPAT-16PF Questionnaire (scores were expressed in stens - 1=low, 10=high).

Teacher's 16PF Extraversion score (EXTRAVERSION)- a measure of the degree of extraversion (according to 16PF responses) in terms of Cattell and Eber's (1964) suggested combination of primary factor scores A, E, F, H, and Q2 on the IPAT-16PF Questionnaire (scores were expressed in stens, 1=low, 10=high).

PSE- A factor score derived from principal components analysis of teacher belief data and based on items 2,3,4,5,6, and 7 from Section C of the TCI. Scores ranged from a maximum of 30 to a minimum of 6. It was assumed that PSE scores reflected the extent to which teachers perceived their personal (perceived teaching competency) and situational (class/school) effectiveness for accommodating the subjects (the higher the scores, the higher the degree of perceived competency/situational effectiveness).

T-E- A factor score derived from principal components analysis of teacher belief data and based on items 1 and 9 from Section C of the TCI. Scores ranged from a maximum of 10 to a minimum of 2. It was assumed that T-E scores reflected the extent to which teachers perceived their training and the equipment available in their schools as sufficient to accommodate the subjects in their classes (the higher the scores the higher the degree of perceived sufficiency).

IMPEDE- A factor score derived from principal components analysis of teacher belief data and based on item 8 from Section C of the TCI. Scores ranged from a maximum of 5 to a minimum of 1. It was assumed that IMPEDE scores reflected the extent to which teachers regarded the presence of the subjects in their class as impeding the progress of other children (the higher the scores, the higher the degree of perceived impediment).

ADEQUACY- A factor score derived from principal components analysis of teacher assessment data and based on items 1,2,3,4,5,6,8 and 9 from Section B of the TCI. Scores ranged from a maximum of 40 to a minimum of 8. It was assumed

that ADEQUACY scores reflected the extent to which the teachers perceived the subjects in their classes as being personally adequate (the lower the scores, the greater the extent of perceived personal adequacy).

ISOLATION- A factor score derived from principal components analysis of teacher assessment data and based on items 7 and 10 from Section B of the TCI. Scores ranged from a maximum of 6 to a minimum of 1. It was assumed that children with high ISOLATION scores would tend to have a family of special class attendance and to be socially withdrawn.

Principal and STJC Attitude Inventory

Items 1-9 on the PSAI were scored from 1-5 (scores ranged from a maximum of 45 to a minimum of 9). It was assumed that high scores represented favourable attitudes toward mainstreaming, while low scores represented favourable attitudes toward special class placement for Low IQ children.

Contact with special classes- the degree of contact a principal or STJC had had with special classes. Scores were expressed in terms of a three point scale: the principal or STJC had taught in a school which contained a special class or had taught a special class =1; had been on teaching section in a school which contained a special class or had visited a special class =2; had read about special classes or knew very little or nothing about them =3.

Frequency of referral to the Psychological Service- the frequency with which principals or STJCs had referred children with learning problems to the School Psychological Service. This variable was scored as follows: (2= quite often or frequently referred; 1= rarely or occasionally referred;

0= never referred).

Irreversibility of special class placement- an estimate by principals and STJCs of the percentage of children who had attended special classes and been returned to regular classes: less than 1%, score=1; about 5%, score=2; about 10%, score=3; about 15%, score=4; more than 15%, score=5.

Attitudes toward special classes- the attitudes towards special classes expressed by principals and STJCs (1=in favour of special class placement, 0=not in favour).

Statistical Analyses

Teacher characteristics and classroom data

A Groups by Sex multivariate analysis of variance was used to test Hypotheses 1.1, 2.1 and 3.1, which referred to teacher data, i.e., class/school characteristics (size of class, percentage of low achievers, percentage of behaviour problems, and school size); teacher characteristics (marital status, age, parental status, years of teaching, academic qualifications, contact with special classes, frequency of referral to the psychological service, and perception of the principal's attitude to special classes); teacher personality characteristics (anxiety and extraversion factor scores); teacher assessment data (ADEQUACY and ISOLATION factor scores); and teacher belief data (PSE, T-E, and IMPEDE factor scores); and for exploratory analyses of the sixteen separate factor scores from the IPAT-16PF Questionnaire.

Wilk's Lambda Criterion (likelihood ratio test) was adopted using Rao's approximate F distribution (Bock, 1975). The computer programme used was a revision of Bock's (1963) MANOVA programme developed at the University of North Carolina

by Eliot Cramer and held on disc at the University of Canterbury Computer Centre. Where appropriate, Step-down F-tests (Bock, 1966,1975; Bock & Haggard, 1968; Finn, 1974) were undertaken. Interpretation of MANOVA effects followed the procedure recommended by Hummel and Sligo (1971), Jones (1966), and Wilkinson (1975). Where the MANOVA main or interaction effects were significant, account was taken of the results of univariate analyses of variance, the correlations between dependent variable measures, and the results of Step-down F-tests. Canonical correlations were computed between child characteristics (IQ, SES, and family in special class) and the child's educational placement, PSE, T-E, IMPEDE, ADEQUACY and ISOLATION scores. The SPSS CANCORR program was used for data analysis but following Harris (1975) the greatest characteristic root (gcr) criterion was used to examine the significance of correlations between the pairs of canonical variates, rather than the chi squares computed by CANCORR.

Principal and STJC data

Groups by Sex MANOVAs were also used to test Hypotheses 1.2, 1.3, 2.2, 2.3, 3.2 and 3.3, which referred to principal and STJC data, i.e., knowledge, attitudes and beliefs about mainstreaming.

CHAPTER FOUR

RESULTS AND DISCUSSION

Study 1: Teacher and classroom factors in children transferred to special classes and children of comparable ability not referred for special classes.

Teacher Characteristics and Classroom Data: N-R and S-C Groups

The multivariate analysis of variance (MANOVA) yielded a significant main effect for Groups ($F(19,10)=2.71, p<.05$) but neither the Sex nor the Sex by Groups interaction effect were significant. The MANOVA results are presented in detail in Tables 6-8. Significant univariate Groups main effects were obtained on three dependent variable measures. On PSE scores, the teachers of N-R children rated their personal and situational effectiveness to accommodate low IQ children higher than did the teachers of the S-C children ($F(1,28)=5.90$, $p<.02; \bar{X}_{nr}=15.81, \bar{X}_{sc}=13.19$); the teachers of N-R children reported a higher proportion of low achievers in their classes ($F(1,28)=5.12, p<.03; \bar{X}_{nr}=2.50, \bar{X}_{sc}=1.87$); and a higher proportion of the teachers of N-R children were married than was the case for the teachers of S-C children ($F(1,28)=7.44$, $p<.01; \bar{X}_{nr}=0.81; \bar{X}_{sc}=0.37$). In addition, a marginally significant intergroup difference was apparent with respect to ADEQUACY scores with N-R teachers rating their subjects higher than the S-C teachers ($F(1,28)=3.82, p<.06, \bar{X}_{nr}=27.25$, $\bar{X}_{sc}=30.12$). Step-down F tests were computed for each of the dependent variable measures which had yielded significant

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* For ease of presentation lower case letters nr and sc are used to denote the non-referred and special class groups respectively.

Table 6

Multivariate Analysis of Variance (MANOVA) of Teacher Data for N-R and S-C Groups: Groups Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	2.70	19.00	10.00	0.05	0.91

	UNIVARIATE F TESTS				STEP-DOWN F TESTS		
Variable	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients	F ratio	df	p less than
Class Size	0.60	21.46	0.444	0.90			
Low-Achv	5.12	3.17	0.032	2.29	1.12	1,26	0.300
Behv-Prob	0.29	0.06	0.597	-1.38			
School Size	3.00	52297.53	0.094	-3.42			
Principal	0.09	0.02	0.762	-2.52			
Marital	7.44	1.61	0.011	-0.69	5.14	1,25	0.032
Age	0.30	0.42	0.586	-5.10			
Parent	1.42	0.31	0.244	0.69			
Experience	2.70	329.48	0.112	3.20			
Qualifications	2.51	1.05	0.124	0.92			
Contact Sc	0.18	0.14	0.674	-0.53			
Referrals	2.07	0.61	0.161	2.62			
Anxiety	1.66	3.25	0.208	-1.23			
Extraversion	0.02	0.08	0.887	-0.05			
PSE	5.90	52.07	0.022	-0.93	5.90	1,28	0.022
T-E	1.95	4.20	0.173	0.21			
Impede	2.38	5.36	0.134	-0.33			
Adequacy	3.82	68.64	0.061	0.50	1.21	1,27	0.281
Isolation	0.41	0.26	0.526	0.18			

*Canonical correlation between artifical ANOVA variables and criteria

Table 7

Multivariate Analysis of Variance (MANOVA) of Teacher Data for N-R and S-C Groups: Sex Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	0.52	19.00	10.00	0.89	0.71

UNIVARIATE F TESTS

Variable	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
Class Size	0.90	32.00	0.351	0.34
Low-Achv	0.00	0.00	1.000	1.67
Behv-Prob	1.34	0.28	0.257	-0.52
School Size	1.14	19800.50	0.295	-1.58
Principal	0.12	0.03	0.732	-1.88
Marital	0.14	0.03	0.707	-0.89
Age	2.76	3.78	0.108	1.31
Parent	0.14	0.03	0.708	-0.81
Experience	1.36	166.53	0.253	-2.29
Qualifications	0.30	0.12	0.588	0.89
Contact Sc	3.18	2.53	0.085	-1.11
Referrals	2.66	0.78	0.114	1.69
Anxiety	0.78	1.53	0.384	-1.13
Extraversion	3.37	13.78	0.077	-0.54
Pse	0.51	4.50	0.481	-0.53
T-E	0.23	0.50	0.633	0.21
Impede	0.89	2.00	0.354	-0.11
Adequacy	0.03	0.50	0.869	-0.45
Isolation	0.05	0.03	0.826	-0.19

*Canonical correlation between artificial ANOVA variables and criteria

Table 8

Multivariate Analysis of Variance (MANOVA) of Teacher Data for N-R and S-C Groups: Groups by Sex Interaction Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	1.11	19.00	10.00	0.45	0.82

UNIVARIATE F TESTS

Variable	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
Class Size	1.39	49.53	0.248	-0.07
Low-Achv	0.54	0.33	0.468	-0.72
Behv-Prob	4.79	1.01	0.037	0.68
School Size	3.13	54500.16	0.088	1.98
Principal	1.39	0.36	0.249	1.76
Marital	0.06	0.01	0.813	0.95
Age	0.44	0.61	0.511	-0.41
Parent	0.00	0.00	0.962	0.11
Experience	0.01	1.00	0.928	2.26
Qualifications	0.04	0.02	0.838	0.10
Contact Sc	0.05	0.04	0.824	0.56
Referrals	2.07	0.61	0.161	-2.32
Anxiety	0.01	0.01	0.937	0.63
Extraversion	0.92	3.75	0.346	0.47
Pse	2.07	18.29	0.161	-0.65
T-E	0.01	0.02	0.928	-0.04
Impede	0.15	0.33	0.703	0.18
Adequacy	0.80	14.33	0.379	0.70
Isolation	1.31	0.83	0.262	-0.15

*Canonical correlation between artificial ANOVA variables and criteria

univariate main effects, with the order of analysis being PSE,ADEQUACY, proportion of low achievers (LOW-ACHV), and teacher's marital status (MARITAL). Following these analyses only the intergroup difference on marital status remained in addition to the PSE main effect ($F(1,25)=5.14, p<.03$). From Tables 39 and 40 (Appendix B) it can be seen that both LOW-ACHV and ADEQUACY scores correlate moderately with PSE scores whereas the correlation between MARITAL scores and PSE scores is almost zero. Consequently the teachers of N-R and S-C children showed intergroup differences on PSE and MARITAL scores which were relatively independent of each other. Intergroup differences were also obtained on LOW-ACHV and ADEQUACY scores but these were related to and overlapped closely with, those obtained from PSE scores.

The above results indicate that there are several differences between the teachers and classroom conditions (as perceived by teachers) of N-R and S-C children thus supporting Hypothesis 1.1. The teachers of N-R children rated themselves and their schools more highly in terms of their ability to accommodate their low IQ children than did the teachers of S-C children; their attitudes to, and assessment of, their low IQ children were more positive than those of the teachers of the S-C children, and the teachers of N-R children were more often married. In addition the teachers of N-R children reported that they had a higher proportion of low achievers in their classrooms than was the case for the teachers of S-C children. These results seem consistent with the notion that teacher characteristics and classroom conditions determine, at least in part, whether or not a low IQ child will attend a special class.

It is commonly assumed that one of the reasons that teachers refer children for special class placement is their desire to rid themselves of a problem they might well be prepared to persist with, were it not for such factors as a large class size or a relatively high proportion of children in their classes with learning and/or behaviour problems who require an undue amount of their time. The results of the present study provide no support for the contention that the size of the class had a significant influence on the teacher's decision to refer children for special class placement. Although in general the S-C children came from larger classes than the N-R children ($\bar{X}_{sc}$=30.56,$\bar{X}_{nr}$=26.69), from Table 21 (Appendix A) it can be seen that this pattern characterized only the boys, with the girls showing an intergroup difference in the opposite direction. There was also no support for the notion that the proportion of children with behaviour problems within particular classes was a significant factor in the teachers' decisions regarding the low IQ children. The proportion of low achievers in classes however, differentiated the groups. In general the teachers of the N-R children rated more than half of their pupils as low achievers, whereas approximately one quarter of the pupils in the classes of the S-C children were included in this category by their teachers. This result is in the reverse direction from that frequently assumed to characterize the classrooms of N-R and S-C children. It could well be that a contrast effect was operating, with a low IQ child being more noticeable (and more likely to be referred) in a classroom where the proportion of children perceived as showing adequate achievement was higher rather than lower.

The finding that perceived situational effectiveness (PSE) differentiated the teachers of N-R and S-C groups seems an important result. It would appear that teachers' beliefs regarding their capability to accommodate the special educational needs of low IQ children, coupled with their perception of the adequacy of their particular school environment in this respect, play an important role in determining whether or not low IQ children in their classes will be referred for special class placement. In particular, teachers who believe they are capable of meeting the special educational needs of low IQ children in a regular class and who regard their particular school system as adequate in this respect, seem much less likely to refer a low IQ child for special class placement. It is interesting to note (Table 39, Appendix B) that teacher PSE scores correlated positively with the academic qualifications of teachers ($r=.51$). It would appear that level of teacher education may be related to teachers feelings of competency in coping effectively with low IQ children in a regular class. Teachers of N-R subjects possessed higher qualifications than teachers of S-C subjects, and this may well have been a factor in their perception of their effectiveness and their retention of the low IQ subjects in their classes. A moderate correlation ($r=-.41$) between PSE scores and the frequency with which teachers referred children with learning problems to the School Psychological Service would also suggest that teachers who feel less effective in coping with low IQ children in regular classes are more likely to refer them for special class placement.

The teachers' ratings of academic achievement, appearance

and behaviour (ADEQUACY scores) received by S-C children were also significantly lower than those received by N-R children, and it should be recalled there was a moderate correlation (r=0.32) between ADEQUACY and PSE scores. It would thus appear that while the teachers of S-C children made lower ratings of their competency (and that of their schools) to meet the special educational needs of low IQ children than those made by the teachers of N-R children (with respect to these pupils), their ratings of the S-C childrens' adequacy of academic achievement, appearance and behaviour were lower than those conferred on their pupils by the teachers of the N-R children. It is noticeable that although the N-R and S-C groups both scored within the 50-80 IQ range and tended to come from low SES homes, the N-R children were of somewhat higher IQ and SES than the S-C children. This raises the possibility that the PSE scores to some extent reflected the teacher's perceived adequacy of the pupils, which in turn was based on the pupils actual intellectual and socioeconomic characteristics and that this inter-relationship was responsible for the obtained intergroup PSE and ADEQUACY differences. There is some support for this possibility. Canonical correlations were computed between the three subject variables (IQ,SES, and family contact with special classes) and the six teacher response variables (educational placement decision, ADEQUACY, ISOLATION, PSE, T-E and IMPEDE scores). The obtained correlations are presented in Tables 9 and 10. In terms of the gcr criterion (Harris, 1975), the first coefficient of canonical correlation is statistically significant at the .05 level ($R(m=2,n=11.5,s=3)=0.78,p<.05$) but neither of the other

Table 9

Canonical Analysis of Subject Characteristics versus Teacher Beliefs and Decisions

	Canonical Correlations		
i	1	2	3
R_i^2	0.616*	0.429	0.174
R_i	0.785	0.655	0.417
	Canonical Variates		
IQ	0.244	0.898	-0.413
SES	-0.772	0.525	0.458
Family in Special Class	-0.352	-0.182	-0.969
Placement Decision	-0.251	-0.595	0.226
Adequacy	-1.062	0.531	-0.054
Isolation	-0.100	-0.113	-0.344
Pse	-0.357	0.474	-0.199
T&E	-0.122	0.572	0.233
Impede	-0.02	-0.206	-0.720

*$p \leq .05$

Table 10

Univariate Correlations between Subject Characteristics, Teacher Beliefs, and Decisions

	Univariate Correlations								
	IQ	SES	Family in Special Class	Placement Decision	Adequacy	Isolation	PSE	T-E	Impede
IQ	-	-0.128	-0.169	-0.582	0.328	-0.036	0.375	0.390	0.060
SES	-0.128	-	0.262	0.172	0.660	-0.115	-0.081	0.001	-0.067
Family in Special class	-0.169	0.261	-	0.135	0.443	0.115	-0.042	-0.325	0.311
Placement Decision	-0.581	0.172	0.135	-	0.336	-0.122	-0.414	-0.263	-0.252
Adequacy	-0.328	0.660	0.443	0.336	-	0.069	-0.435	-0.288	0.059
Isolation	-0.359	-0.115	0.114	-0.122	-0.069	-	0.096	-0.094	-0.019
PSE	0.374	-0.081	-0.042	-0.414	-0.435	-0.096	-	-0.006	0.172
T-E	0.399	0.001	-0.325	-0.263	-0.288	-0.094	-0.006	-	-0.205
Impede	0.060	-0.067	0.311	-0.252	0.059	-0.019	0.172	-0.205	-

coefficients are significant. The first pair of canonical variates seem to be identifying a tendency for children of lower IQ and SES with more family members in special classes, to be assessed more negatively and referred for special class by teachers who perceive their classroom/school situations as less adequate to cope with low IQ children. At the same time, it should be noted that the specified linear combination of subject variables accounts for only 61 percent of the total variation in the specified combination of teacher response variables. Consequently it seems clear that PSE and ADEQUACY scores are to some extent independent of the children's actual intellectual and socioeconomic characteristics, and it seems probable that the teachers' beliefs about their competence (and that of their schools) to accommodate low IQ children together with their assessment (and probably expectations) of low IQ children, whether accurate or not, play an important part in their decisions to refer a low IQ child for special class placement, or to retain such a child in the educational mainstream.

A significantly higher proportion of N-R teachers were married than was the case with S-C teachers and, it should be noted, this difference is virtually independent of those obtained on PSE, ADEQUACY and LOW-ACHV measures. It is not clear why marital status should differentiate the groups although it seems at least possible that this difference is indicative of somewhat different personality characteristics in the two groups. While neither the basic source traits nor the two second order factor scores on the IPAT-16PF scale differentiated the groups, thus providing no support for this contention, it is interesting to consider the differential

marital status of the groups in conjunction with the pattern of group means on some of the other dependent variable measures. In general, the teachers of the S-C children were older than the teachers of N-R children, they had somewhat lower academic qualifications although they had been teaching for more years, and very few of them had children of their own. It is possible that teachers with these attributes are less tolerant of intellectual and/or behavioural deviance than teachers who contrast with them on these dimensions (i.e. teachers who tend to be younger, married, parents, better qualified academically, and are less experienced in teaching). It is possible that in comparison with N-R teachers, these attributes of the S-C teachers may have reduced their tolerance and acceptance of, and their adaptation to the range of behaviours presented by low IQ children. This would be consistent with Lightfoot and Carew's (1976) contention that discrimination of children who differ from the norm 'hardens with the passage of time', and with the finding (Gottlieb & Gorman, 1975) that people over thirty years of age are more likely to favour segregation of retarded children than younger people. It may be that teachers of the S-C children were less able and/or less willing to accommodate the individual differences of their low IQ pupils resulting in their referral to a special class.

It is possible that low IQ children who present learning and/or behaviour problems tend to be placed with more experienced teachers in a school. It should also be noted that the majority of primary school teachers are women, and that those with the greatest length of teaching experience

are likely to be unmarried. Thus, the greater proportion of unmarried teachers associated with the S-C groups may derive, at least in part, from their slightly (but not significantly) greater teaching experience. Since S-C teachers had fewer low achievers in their classes, however, and the proportion of behaviour problems in the class did not differentiate the S-C and N-R groups, support for these contentions is not strong. It is interesting to speculate that married teachers may be less likely to refer low IQ children for special class placement. Ryan (1960) found that married teachers in comparison with unmarried teachers, were more understanding, responsible and imaginative, showed more warmth and friendliness and tended to be more child-oriented in their educational outlook. The characteristics shown by the married teachers seem to be particularly desirable for those involved in mainstream provisions for low IQ children, and if this differential characterized the teachers in the present study it could be a significant factor in the differential educational decisions made by the S-C and N-R teachers.

MacMillan, Jones and Meyers (1976) argue that a low IQ child is almost entirely subject to the 'luck of the draw' in the regular class teacher he receives. The results of the present study are consistent with this point of view. Unmarried teachers were more likely than married teachers to have a low IQ child in their classroom transferred to segregated special classes, despite the fact that they had a lower proportion of low achievers in their classes. The N-R teachers (who retained the low IQ subjects in their classes) rated themselves and their school situations more

highly in terms of their ability to accommodate low IQ children than did the S-C teachers (who referred the low IQ subjects in their classes for special class placement). The extent to which the teachers in this study believed they were competent to provide for low IQ children in regular classes appears to have been an important factor associated with differential educational placement of the low IQ children in their classes. These beliefs may or not be justified, but if increasing integration of special class children into regular classes, and/or replacement of special classes with mainstream provisions are to be attempted, the confidence which teachers have that they can cope adequately with low IQ children must be established, just as certainly as in the final analysis it must be justified.

Principal and STJC Data: N-R and S-C Groups

The multivariate analysis of variance (MANOVA) of the principal's PSAI data failed to yield significant main or interaction effects. These results which are presented in detail in Tables 11-13, indicate that the principals of the N-R and S-C groups did not differ significantly on the attitude measures, and provide no support for Hypothesis 1.2.

The MANOVA of the PSAI data for the STJCs (Tables 14-16) yielded a significant main effect for Groups ($F(13,16)=5.47$, $p<.001$) and a marginally significant Sex main effect ($F(13,16)=2.32, p<.056$), but the Groups by Sex interaction

Table 11

Multivariate Analysis of Variance (MANOVA) of Principal Data for N-R and S-C Groups: Groups Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	1.32	13.00	16.00	0.29	0.72

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	0.04	0.04	0.838	0.70
2	0.19	0.22	0.668	-0.13
3	0.41	0.29	0.528	0.14
4	0.71	0.33	0.406	-0.57
5	0.51	0.24	0.481	-0.05
6	0.17	0.20	0.686	0.32
7	1.61	1.05	0.215	-1.27
8	1.19	1.05	0.285	0.80
9	1.55	1.45	0.223	0.01
10	0.38	0.11	0.544	0.07
11	4.85	0.64	0.036	-1.19
12	0.63	0.64	0.435	-0.53
13	0.00	0.00	1.000	0.46

*Canonical correlation between artificial ANOVA variables and criteria

Table 12

Multivariable Analysis of Variance (MANOVA) of Principal Data for N-R and S-C Groups: Sex Main Effect

Tests of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	1.96	13.00	16.00	0.10	0.78

	UNIVARIATE F TESTS			
PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	0.03	0.03	0.857	-0.69
2	0.24	0.28	0.627	0.20
3	2.86	2.00	0.102	0.83
4	2.40	1.12	0.133	-0.56
5	2.39	1.12	0.133	0.25
6	0.42	0.50	0.522	-0.15
7	0.19	0.12	0.665	0.26
8	0.14	0.12	0.709	-1.33
9	3.36	3.12	0.078	0.87
10	5.17	1.53	0.031	1.47
11	3.77	0.50	0.062	-0.38
12	0.49	0.50	0.490	-0.21
13	0.00	0.00	1.000	-0.29

*Canonical correlation between artifical ANOVA variables and criteria

Table 13

Multivariate Analysis of Variance (MANOVA) of Principal data for N-R and S-C Groups: Groups by Sex Interaction Effect

Tests of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	1.15	13.00	16.00	0.39	0.69

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	0.12	0.11	0.733	0.87
2	0.07	0.08	0.791	-0.15
3	0.18	0.13	0.673	-0.54
4	0.51	0.24	0.481	-0.45
5	0.71	0.33	0.406	0.30
6	2.94	3.50	0.097	0.58
7	0.11	0.07	0.743	-0.14
8	0.14	0.13	0.707	1.31
9	3.08	2.86	0.090	-0.91
10	0.14	0.04	0.715	-1.07
11	4.85	0.64	0.036	0.41
12	6.08	6.22	0.020	-0.27
13	0.76	0.20	0.390	0.67

* Canonical correlation between artifical ANOVA variables and criteria

Table 14

Multivariate Analysis of Variance (MANOVA) of STJC Data for N-R and S-C Groups: Groups Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	5.47	13.00	16.00	0.001	0.90

	UNIVARIATE F TESTS				STEP-DOWN F TESTS		
PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients	F ratio	df	p less than
1	0.48	0.18	0.495	-0.52			
2	6.18	4.20	0.019	-1.28	4.83	1,27	0.037
3	2.45	2.23	0.129	1.95			
4	3.04	2.64	0.092	-2.70			
5	2.02	1.61	0.166	1.99			
6	0.02	0.01	0.892	0.41			
7	2.40	1.56	0.133	2.06			
8	1.94	1.67	0.174	2.53			
9	14.45	4.57	0.001	-3.12	14.45	1,28	0.001
10	0.50	0.42	0.484	-1.02			
11	0.43	0.10	0.517	-0.34			
12	0.82	0.45	0.372	-1.84			
13	0.11	0.02	0.737	0.64			

*Canonical correlation between artificial ANOVA variables and criteria

Table 15

Multivariate Analysis of Variance (MANOVA) of STJC Data for N-R and S-C Groups: Sex Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	2.32	13.00	16.00	0.056	0.81

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	2.08	0.78	0.160	-0.07
2	18.41	12.50	0.001	-0.65
3	0.86	0.78	0.362	0.54
4	0.04	0.03	0.851	-2.57
5	0.04	0.03	0.844	2.01
6	7.99	5.28	0.009	0.13
7	3.08	2.00	0.090	0.53
8	17.62	15.12	0.001	2.46
9	0.00	0.00	1.000	-1.07
10	0.94	0.78	0.340	-0.86
11	0.55	0.12	0.463	0.26
12	0.23	0.12	0.635	-0.82
13	0.15	0.03	0.704	0.63

*Canonical correlation between artificial ANOVA variables and criteria

Table 16

Multivariate Analysis of Variance (MANOVA) of STJC Data for N-R and S-C Groups: Groups by Sex Interaction Effect

Test of roots 1 through 1	F 1.44	df(hyp) 13.00	df(error) 16.00	p less than 0.24	R* 0.73

	UNIVARIATE F TESTS			
PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	4.00	1.50	0.055	0.19
2	0.42	0.29	0.522	-0.80
3	0.24	0.22	0.628	0.02
4	1.99	1.73	0.170	-2.98
5	5.39	4.29	0.028	3.02
6	0.63	0.42	0.434	0.13
7	2.75	1.79	0.108	0.65
8	0.06	0.05	0.812	1.58
9	1.41	0.45	0.245	-1.33
10	2.53	2.10	0.123	-1.05
11	1.49	0.33	0.233	-1.14
12	0.18	0.10	0.675	-0.59
13	2.25	0.48	0.145	-0.21

*Canonical correlation between artificial ANOVA variables and criteria

effect was not significant. Significant univariate Groups main effects were obtained on two dependent variable measures (items 2 and 9). The STJCs of children in the N-R group in comparison with the STJCs of children in the S-C group showed stronger agreement with the proposition (item 2) that the presence of a low IQ child in a regular class impedes the progress of other children in that class ($F(1,28)=6.18, p<0.019, \bar{X}_{nr}=2.31, \bar{X}_{sc}=3.19$), as well as stronger agreement with the statement (item 9) that the support provided by principals and STJCs enables teachers to cope adequately with low IQ children in regular classes ($F(1,28)=14.45, p<0.001, \bar{X}_{nr}=2.81, \bar{X}_{sc}=2.06$). Step-down F tests were conducted on items 2 and 9 (order 9,2) and a significant Groups main effect for item 2 was obtained ($F(1,27)=4.83$, $p < 0.04$). Thus teachers of N-R and S-C children demonstrated an intergroup difference on item 2 which was relatively independent of that obtained on item 9. From Table 48 (Appendix C) it can be seen further that the correlation between items 2 and 9 is in fact relatively small ($r=0.17$). These results provide some support for Hypothesis 1.3.

It would appear that STJCs in schools that retain low IQ children in regular classes believe more strongly than STJCs in schools from which children are admitted to special classes that retention of a low IQ child in a regular class impedes the progress of other children in the class. It is possible that whereas regular class teachers who have low IQ children in their classes but do not refer them, tend to feel competent to handle such children, STJCs in the same schools (who perceive themselves, either individually or in conjunction with their principals, as more supportive of

these teachers) are still more concerned than STJCs of SC subjects about the adverse effect on other children which could stem from the retention of low IQ children in regular classes. STJCs of the S-C group (who had had low IQ children transferred from their schools to a special class) may have expressed less concern about the effects of such children on the progress of other children because they no longer have such children in their classes to concern them.

The fact that the STJCs of children in the N-R group agree more strongly than the STJCs of S-C children that existing support from principals and/or STJCs enables teachers to provide adequately for low IQ children in regular classes, seems very significant. It would appear that STJCs in schools from which low IQ children have been transferred to special classes, in comparison with the STJCs of N-R children, feel less adequate in assisting teachers to cope with the demands of low IQ children and/or less adequately supported by their principals. The adequacy (or otherwise) of STJC/principal support appears to be an important factor associated with placement or non placement of a low IQ child in a special class, and its importance is likely to be greater where the class teacher also feels inadequate to cope with the demands of such a child. The lower degree of satisfaction with existing principal/STJC support for teachers of low IQ children shown by the STJCs of S-C children, may be indicative of feelings of inadequacy on their part following the transfer of the children from their schools. Although STJCs of nonreferred children felt more strongly than STJCs of special class children that the presence of low IQ children impeded the progress of others in the class,

they apparently felt competent to deal with the situation. It would appear that teachers/STJCs who for a variety of reasons felt inadequate to retain low IQ children in regular classes are more likely to want to remove such children from their classrooms, and conversely that teachers/STJCs who feel more competent are more likely to retain the children in their classes. It is likely, however, that whether or not a low IQ child is referred for special class placement is not only a function of feelings of inadequacy on the part of teachers, but also of their beliefs about special classes. While the difference was not significant ($p<.09$), the N-R STJCs in comparison with the STJCs of the S-C group, were somewhat more inclined to believe that low IQ children are less adequately prepared for life if they are placed in a special class rather than remaining in a regular class.

Although the results are not directly relevant to the investigation, it is interesting to note from inspection of the univariate Sex main effects that there are three measures which differentiated the STJCs with low IQ boys in their classes from those with low IQ girls. The STJCs with boys, agreed more strongly than STJCs with girls that the presence of low IQ children in regular classes impedes the progress of other children ($F(1,28)=18.41, p<001, \bar{X}_b=3.33, \bar{X}_g=2.79$); that the earlier a low IQ child is placed in a special class the greater the benefit to the child ($F(1,28)=7.99, p<.009, \bar{X}_b=3.28, \bar{X}_g=2.50$); and that the presence of low IQ children places undue demands on the teacher's time ($F(1,28)=17.62, p<.001, \bar{X}_b=2.50, \bar{X}_g=2.07$). The fact that STJCs of low IQ boys felt more strongly than STJCs of girls that the

* Lower case letters of b and g are used to refer to boys and girls respectively.

presence of low IQ children in a regular class impedes other children and is more demanding of the teacher's time, suggests that STJCs find low IQ boys somewhat more disruptive than low IQ girls. This result is consistent with available research findings in this area, viz., that low IQ boys present more behaviour problems and are more disruptive in class than low IQ girls, and that there are more boys than girls in special classes (Robbins, Mercer & Meyers, 1965; Gillespie & Fink, 1974; Rowitz, 1974). Indeed the greater extent of agreement with the proposition that the earlier a low IQ child is placed in a special class the greater the benefits to the child, on the part of the STJCs of boys, could well reflect an attempt to justify a desire to rid themselves as soon as possible of low IQ boys who in their view present more problems in classroom management than do low IQ girls.

In summary, a variety of teacher factors differentiate the S-C and N-R groups, and it would seem that over and above the child's actual behavioural characteristics such teacher factors have an important influence on the extent to which low IQ children are transferred to special classes. In comparison with teachers of S-C subjects teachers of N-R subjects perceived their effectiveness, both personal and situational, as more adequate to cope with low IQ children in regular classes; Teachers of N-R children perceived their classes as containing a higher proportion of low achievers than did teachers of S-C children, which appears to indicate that the reference group used by teachers to assess the performance of a low IQ child may be an important factor in determining whether such a child will be referred for special

class placement. It was also found that a significantly higher proportion of N-R than S-C teachers were married, and despite the absence of intergroup differences on IPAT-16PF primary or secondary factor scores, this finding could be a reflection of personality differences between teachers of N-R and S-C children, and these may have been partly responsible for the differential educational placement of the low IQ children in their classrooms.

STJCs of N-R subjects agreed more strongly than STJCs of S-C subjects that low IQ children in regular classes impede the progress of other children in the class; nevertheless they retained the low IQ subjects in their classes. The fact that the N-R children were not referred for special class placement may well be due to the fact that the class teachers perceived themselves as competent to cope effectively with such children. Alternatively, the difference between the groups could have arisen because STJCs of S-C subjects had already transferred their most difficult low IQ children to special classes, and therefore did not feel so strongly that low IQ children in regular classes impeded others. It was also found that STJCs of N-R subjects agreed more strongly than STJCs of S-C subjects that the support provided by principals and STJCs enabled teachers to cope adequately with low IQ children in regular classes. Whether or not the belief was justified, the fact that STJCs of S-C children perceived available STJC/principal support as less adequate, may well have been an important factor in determining the special class placement of the low IQ children in their classes. It should be noted that the influence of STJC beliefs on educational placement decisions would be likely

to be accentuated if the regular class teacher of a low IQ child did not feel competent to cope effectively with such a child.

Study 2: Teacher and classroom factors in children eligible for special class placement who remained in regular classes following psychological assessment, children transferred to special classes, and children of comparable ability not referred to special classes.

Teacher Characteristics and Classroom Data: N-R and R-SC Groups

The multivariate analysis of variance (MANOVA) failed to yield significant main or interaction effects, and this provided no support for Hypothesis 2.1. The MANOVA results are presented in Tables 51-53 (Appendix C). In terms of the differential educational placement decisions that had been made by the teachers of the R-SC and N-R subjects, it was predicted that differences on some of the dependent variable measures would emerge. Since there were no significant differences between teachers of N-R and R-SC children in terms of personal characteristics, personality factors, perceived personal and situational effectiveness, assessment of the subjects, and school organizational factors, it would appear that the decision to refer children for special class placement is not a function of teacher or classroom characteristics. Alternatively such placement could be dependent upon teacher and classroom factors other than those included in this study. Moreover, because of the markedly retrospective nature and questionable validity of much of the R-SC data and the possible shortcomings of the measures employed, the possibility cannot be discounted that there are important differences between N-R and R-SC teachers which did not emerge in the course of this investigation. In

particular, it seems likely that the attitudes of the R-SC teachers toward mainstreaming their feelings of personal and situational competency and their assessment of the subjects, could have altered between the time they referred the subject in their class to the School Psychological Service, and the time of the present study.

Principal and STJC Data: N-R and S-C Groups

The MANOVA of the PSAI data yielded no significant main or interaction effects for either principals or STJCs, and thus failed to confirm Hypotheses 2.2 or 2.3. The MANOVA results for principals are presented in Tables 57-59 (Appendix C), and for STJCs, in Tables 63-65 (Appendix C). As there were no significant differences between either the principals or the STJCs of the N-R and R-SC children on PSAI scores, it would appear that their beliefs about, and attitudes toward mainstreaming/special classes were independent of the decision to refer, or not refer the low ability subjects in their schools for special class placement. The decision may have been made on the basis of principal and STJC factors not included in this study, e.g., the principals' and STJCs' assessment of the subjects, or the recommendations of the subjects class teachers. This latter possibility does not seem very likely, however, from the teacher data, which was obtained. It is also possible that at the time of referrals there were differences in attitudes toward mainstreaming/special classes in the principals and STJCs of the N-R and R-SC groups, but that these differences were reduced during the time that elapsed between the referrals and the present investigation.

Perhaps at the time of referral the teachers, principals and STJCs of R-SC children were concerned about their ability to make suitable mainstream provisions for the mildly retarded child in their class or school. Such concern could well have prompted their referral of the subjects, but their concern may have been attenuated substantially as a result of their contact with the school psychologist.

In brief, since there were no differences between the teachers' perceived personal and situational effectiveness, and the attitudes toward mainstreaming of principals and STJCs of the N-R and RS-C groups it would appear that their beliefs, attitudes etc. are independent of the decision that was made in their schools for special class referral. The retrospective nature of this study, however, makes any conclusions exceedingly hazardous, and there could well be teacher (including principals and STJCs) factors that were not included in the present study, which may have had a sizeable influence on the differential decisions which were made.

Teacher Characteristics and Classroom Data: R-SC and S-C Groups

The MANOVA yielded no significant main or interaction effects, and thus provided no support for Hypothesis 3.1. The MANOVA results are presented in detail in Tables 54-56

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* Where significant main or interaction effects were obtained, the results are tabulated and discussed in the Results section. All other tables are included in Appendix C.

(Appendix C). Since there were no apparent intergroup differences between teachers of the R-SC and S-C children in terms of personal characteristics, personality factors, perceived situational effectiveness, assessment of the subject, and school organizational factors, it would appear that the decision to transfer or not to transfer the subjects in their classes to a special class, was not related to these factors.

Since there were no apparent differences in teacher and classroom characteristics it might be expected that transfer decisions would reflect differential behaviour, school achievement or personal adequacy of the two groups. No evidence of such differences was obtained however. The absence of differences between the R-SC and S-C groups on any of the dependent variable measures, could be due to methodological problems such as those referred to in the comparison of the N-R and R-SC groups (lack of refinement of the measuring instruments used, and the retrospective nature of the data, etc.) Alternatively, it is possible that the decision to transfer or not transfer children to a special class may depend most upon the outlook and conclusions reached by the psychologist concerned. No intergroup differences were apparent, however, on either of these factors in the psychological reports and case records of the children in the two groups.

Principal and STJC Data: R-SC and S-C Groups

The MANOVA of the PSAI data for principals failed to yield significant main or interaction effects, thus providng no support for Hypothesis 3.2. The results of this MANOVA

are presented in Tables 60-62 (Appendix C). The fact that there were no differences between the principals of the R-SC and S-C subjects in their attitudes toward mainstreaming/special classes, appears to indicate that the principals' attitudes did not play a significant part in the decisions to transfer or not transfer the subjects to special classes.

The MANOVA of the PSAI data for STJCs yielded a significant Groups by Sex interaction effect ($F(1,28) = 4.10$, $p<.005$), but neither the Groups nor Sex main effects were significant. The MANOVA results are presented in detail in Table 17, and in Tables 67 and 68 (Appendix C). Significant univariate Groups by Sex interaction effects were obtained on three dependent variable measures. Analyses of simple effects of Groups for boys and girls separately ($\alpha=.05$) were computed for each item which had yielded a significant interaction effect (Tables 18-20): viz, Item 2 ($F(1,28)=5.24, p<.03$), Item 7 ($F(1,28)=7.93, p<.01$), Item 8 ($F(1,28)=8.29, p<.01$). The intergroup difference for boys on Item 2 approached ($p<.07$) significance ($\bar{X}_{rsc}=2.89$, $\bar{X}_{sc}=3.78$)* but the difference for girls was not significant ($\bar{X}_{rsc}=3.14$, $X_{sc}=2.43$). On Item 7 the intergroup differences were significant for boys ($\bar{X}_{rsc}=2.11$, $X_{sc}=1.22$) but not for girls ($\bar{X}_{rsc}=1.57$, $\bar{X}_{sc}=2.14$). For Item 8 the intergroup differences were again significant for boys ($\bar{X}_{rsc}=1.89$, $\bar{X}_{sc}=3.11$) but not for girls ($\bar{X}_{rsc}-2.43$, $\bar{X}_{sc}=1.71$).

The STJCs for R-SC boys thus agreed more strongly than the STJCs of S-C boys that the support provided by the

*Lower case letters of rsc and sc are used to denote the referred and special class groups respectively.

Table 17

Multivariate Analysis of Variance (MANOVA) of STJC Data for R-SC and SC Groups: Groups by Sex Interaction Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	4.10	13.00	16.00	0.005	0.88

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	0.16	0.10	0.689	0.85
2	5.24	5.06	0.030	0.73
3	3.32	3.42	0.079	0.12
4	0.10	0.08	0.750	-1.29
5	1.72	1.14	0.200	0.55
6	0.66	0.57	0.424	-1.34
7	7.83	4.20	0.009	0.28
8	8.29	7.38	0.008	1.42
9	1.10	0.48	0.303	-0.94
10	3.07	2.03	0.091	-1.56
11	0.04	0.01	0.851	1.11
12	1.24	1.05	0.275	0.34
13	0.55	0.13	0.466	-0.83

*Canonical correlation between artificial ANOVA variables and criteria

Table 18

Analysis of Variance (Simple Effects) for STJCs on PSAI Item 2: RSC-SC Groups

Source of Variation	SS	df	MS	F	P
B for a_1 (Groups for boys)	3.06	1	3.06	3.19	N.S.
B for a_2 (Groups for girls)	1.96	1	1.96	2.04	N.S.
Within cells	26.88	28	0.96		

N.S. Not significant at .05 level

Table 19

Analysis of Variance (Simple Effects) for STJCs on PSAI Item 7: R-SC and S-C Groups

Source of Variation	SS	df	MS	F	P
B for a_1 (Groups for boys)	3.06	1	3.06	5.77	*
B for a_2 (Groups for girls)	1.25	1	1.25	2.36	N.S.
Within cells	14.84	28	.53		

* $p < .05$

N.S. Not significant at .05 level

Table 20

Analysis of Variance (Simple Effects) for STJCs on PSAI Item 8: R-SC and S-C Groups

Source of variation	SS	df	MS	F	P
B for a_1 (Groups for boys)	5.88	1	5.88	6.61	*
B for a_2 (Groups for girls)	2.35	1	2.35	2.64	N.S.
Within cells	24.92	28	.89		

* $p < .05$

N.S. Not significant at 0.5 level

School Psychological Service enables teachers to cope adequately with low IQ children in regular classes (Item 7). This finding suggests that the STJCs of S-C boys may have felt more frustrated in coping with these boys than STJCs of R-SC boys. The finding that low IQ boys generally present more behaviour problems than low IQ girls has been well documented (Farber, 1968; Gillespie & Fink, 1974; Mercer, 1973). The teachers of S-C boys could thus have had a greater need for support by the Psychological Service, and because this did not appear to eventuate they tended to exert more pressure on the STJCs for the transfer of the low IQ boys. The STJCs of R-SC boys also disagreed more strongly than the STJCs of S-C boys that the presence of low IQ children places undue demands on a teacher's time (Item 8). Moreover, although the difference did not quite reach statistical significance, the STJCs of S-C boys also tended to agree more strongly than the STJCs of R-SC boys, that the present of low IQ children in a regular class impedes the progress of other children (Item 2). These findings, together with the nonsignificant differences for girls, also suggests that boys present greater problems of management within the school, and that low IQ boys who are found to be most troublesome tend to be placed in special classes. It must be taken into consideration, however, that beliefs held by the STJCs of S-C or R-SC boys in the lack of Psychological Service support, in the undue demands placed on the teacher's time by low IQ children, and in the tendency of low IQ children in regular classes to impede the progress of other children, may have arisen as a post hoc justification

for the STJCs decision to transfer the S-C boys. Or, in the case of the R-SC boys, the STJCs beliefs could have become more favourable towards mainstreaming provisions following the decision to retain the low IQ subjects in their schools.

When the STJC data for Studies 1 and 2 are considered concomitantly, two major concerns of STJCs seem to have been involved in the referral and placement of low IQ children in special classes. The first was related to the sex of the subjects in the STJCs' schools. Although the proportion of boys to girls was not significantly different for any of the groups in Study 1 or 2, it is generally accepted that considerably more boys than girls attend special classes (Gillespie & Fink, 1974), and in both Study 1 and in the comparison of R-SC and S-C groups in Study 2, the STJCs of boys seemed far more concerned about the effects of mainstreaming low IQ children in regular classes than the STJCs of girls. This difference was particularly noticeable in the case of S-C subjects. The second concern was related to the degree of support provided for teachers who have low IQ children in their classrooms. This concern appears to be demonstrated in Study 1 where teachers of N-R subjects showed evidence of stronger belief than was demonstrated by S-C teachers, that the degree of support provided by principals and STJCs enables teachers to cope adequately with low IQ children in their classes. Similarly, in Study 2, the STJCs of S-C boys were less confident than the STJCs of R-SC boys that the support provided by the

Psychological Service enabled teachers to cope adequately with low IQ children in their classes. Moreover, in Study 1, degree of support by principals, STJCs and the Psychological Service were variables involved in the higher PSE scores of teachers who had not referred children to special classes in comparison with teachers of children transferred to special classes. It would thus appear that beliefs about the degree of support provided to enable teachers to cope adequately with low IQ children in regular classes are related to the differential educational placement of low IQ children.

The fact that the Groups by Sex interaction effect for STJCs of R-SC and S-C subjects was the only difference which emerged from the comparisons of teachers, principals and STJCs in the N-R and R-SC, and R-SC and S-C groups, could indicate that factors other than those measured in this study were operative in the differential referral and educational placement of low IQ children. Because of the markedly retrospective nature of the data on R-SC subjects, and the essentially exploratory nature of the dependent measures used, however, only very tentative conclusions can be drawn from Study 2.

Comparisons across groups of the dependent variable measures which showed significant Groups main effects for teachers of N-R vs. S-C groups (Study 1), N-R vs. R-SC groups and R-SC vs. S-C groups (Study 2), demonstrated certain notable trends. In Study 1, N-R teachers felt more personally and situationally competent than did S-C teachers to cope effectively with low IQ children in a regular class.

While the intergroup comparisons on this measure in Study 2 were not significant the differences were consistent with those obtained in Study 1, i.e. N-R teachers perceived themselves as more personally and situationally competent than did R-SC teachers, and R-SC teachers perceived themselves as more personally and situationally competent than S-C teachers. It is possible that these perceptions arose as a post hoc justification of the referral and/or placement by R-SC and S-C teachers respectively, but the results suggest strongly that the self-perceived personal and situational competency of teachers to accommodate low ability children in a regular class is an important factor in determining whether such children will be referred for special class placement or transferred to a special class following psychological assessment. The less competent a teacher feels to cope with a low IQ child the more pressure he or she may apply for that child to be admitted to a special class. This would account for the consistent pattern of intergroup differences in the three sets of comparisons.

In Study 1, the N-R teachers perceived the proportion of low achievers in their classes as significantly higher than S-C teachers, and although the multivariate Groups main effect for N-R and R-SC teachers was not significant, the results of univariate analyses showed that N-R teachers also perceived the proportion of low achievers in their classes as significantly higher than did teachers of R-SC subjects. The difference between R-SC and S-C groups was not significant however, which suggests that a reference group effect may influence teacher's perceptions

of children as deviant and suitable for referral to special classes. The fact that there was no significant difference between the R-SC and S-C groups but that there were significant differences between both the N-R and S-C and the N-R and R-SC groups suggests that a low proportion of low achievers in a class may predispose teachers to refer a low IQ child to the Psychological Service, but it is not a significant factor when the transfer of a child to a special class is being considered.

In Study 1 a significantly higher proportion of N-R teachers than S-C teachers were married. In Study 2, more N-R teachers were married than R-SC teachers (although the difference was not significant), and although the multivariate Groups main effect for R-SC and S-C teachers was not significant, the results of univariate analyses showed that significantly more R-SC teachers than S-C teachers were married. It thus appears that factors associated with the marital status of teachers may be influential in the referral and placement of low IQ children.

N-R teachers, in comparison with S-C teachers, perceived the children in their classes as higher in terms of their personal ADEQUACY, and although the difference was not significant for either comparisons in Study 2, N-R teachers rated the subjects in their classes slightly higher on this measure than R-SC teachers, and R-SC teachers rated the subjects in their classes as slightly more adequate than did S-C teachers. Children in the N-R group may well

have been higher in terms of their personal adequacy than the children in the S-C group, but it is likely that the lower ADEQUACY scores attributed to the subjects in their classes by R-SC and S-C teachers may have been a reflection of a post hoc justification of the educational referral and/or placement decisions they had initiated. It is possible that a halo effect had operated, with teachers who perceived a child as low on one or more dimensions tending to view the child as low on other dimensions. The relatively strong general factor (Factor 1, ADEQUACY) which emerged from the factor analysis of the (TCI, Section B) child assessment data, is at least consistent with this position. Since no objective measures were undertaken to assess the child's actual adequacy (apart from IQ) no firm conclusions can be drawn with respect to the accuracy of the teachers assessment of the children.

An examination of the dependent variable measures which showed significant Groups main effects for STJCs of N-R and S-C groups (Study 1) and for STJCs of N-R and R-SC groups, and R-SC and S-C groups (Study 2) also indicates several trends. In comparison with the STJCs of S-C subjects, the STJCs of N-R subjects believed more strongly that the presence of a low IQ child in a regular class impedes the progress of other children in the class. And, although the multivariate Groups main effect for N-R and R-SC STJCs was not significant, the results of the univariate analyses showed that STJCs of N-R subjects felt more strongly than STJCs of R-SC subjects on the same measures. While the difference was not significant, the

STJCs of R-SC subjects felt more strongly than STJCs of S-C subjects than the presence of a low IQ child in the classroom impedes the progress of other children. It is possible that STJCs of children who have been transferred to special classes feel less strongly than STJCs who still have low IQ subjects in their schools, that the presence of low IQ children in regular classes impedes the progress of others, as they no longer have to cope with the subjects in their schools. Moreover, it may well be possible that once a psychologist has assessed a child referred for a special class, even though the child was not placed, the STJC felt more supported and less justified in viewing the child as impeding others in the class. This could account for the difference between the N-R and S-C groups.

In comparison with the STJCs of S-C subjects, the STJCs of N-R subjects agreed more strongly that the support provided by STJCs and/or principals enabled teachers to cope adequately with a low IQ child in a regular class. There was no significant difference on this measure between STJCs of N-R and R-SC subjects, although the group means for the STJCs of N-R subjects were slightly higher than the group means for STJCs of R-SC subjects, and though the multivariate Groups main effect for R-SC and S-C STJCs was not significant, the results of the univariate analyses showed that the STJCs of R-SC subjects agreed more strongly than the STJCs of S-C subjects that the support provided by STJCs and/or principals enables teachers to cope adequately with low IQ children in a regular

class. It thus seems likely that support for teachers who retain low IQ children in a regular class is an important factor in determining the success of such an endeavour. Teachers who perceived themselves as personally effective and situationally supported and had STJCs in their schools who felt most strongly that the support provided STJCs and principals enables teachers to cope adequately with low IQ children in a regular class, retained such children in their classes. Teachers who did not feel personally effective and situationally supported and had STJCs in their schools who did not agree so strongly that STJC and/or principal support enables teachers to cope adequately with low IQ children in a regular class, had such children transferred to special classes.

SUMMARY AND CONCLUSIONS

CHAPTER FIVE

The results of Study 1 revealed a number of differences between the teachers of N-R and S-C children, some differences between STJCs, and no differences between the principals. In comparison with teachers of S-C subjects, N-R teachers perceived themselves as more personally and situationally effective in coping with low IQ children in regular classes; they believed they had a higher proportion of low achievers in their classes; they rated their subjects as higher in terms of ADEQUACY scores; and more of the N-R teachers were married. While N-R teachers had more low achievers in their classes than did the teachers of S-C subjects, they perceived their subjects as more adequate than did teachers of S-C subjects. This difference may have arisen as a function of a contrast effect whereby a low IQ child would be less obviously deviant and perceived as more adequate in a class of children who are low achievers than would be the case in a class of higher achieving children. The STJCs of N-R subjects were more in agreement than the STJCs of S-C subjects, that low IQ children impede the progress of other children in regular classes, and that the support provided by STJCs and/or principals enables teachers to cope adequately with low IQ children in regular classes. The possibility cannot be discounted that there are more children with learning difficulties in the schools attended by N-R subjects. This possibility notwithstanding, the

support provided by STJCs and/or principals which was deemed more adequate by N-R STJCs than by STJCs of S-C children, may have been a possible contributing factor to the greater feeling of personal and situational effectiveness expressed by N-R teachers.

The fact that N-R teachers felt more competent, and perceived the subjects in their classes as more adequate than did the teachers of S-C subjects, may have been a function of the personal characteristics of the teachers. These characteristics may in fact have been recognized by principals, and this may have accounted for the allocation of such teachers to classes containing a high proportion of low achievers. If this was indeed the case, it is possible that although the STJCs of N-R subjects felt more strongly than the STJCs of S-C subjects that low IQ children impeded the progress of others, they may not have referred the N-R subjects to the Psychological Service because of the regard they had for the effectiveness of the N-R teachers to cope adequately with low IQ children. The N-R teachers rated their subjects more highly in terms of adequacy than did the teachers of S-C subjects, and more N-R teachers were married. While there is no data on the validity of these ratings, it is possible that the N-R teachers were more adept in terms of human relationships and were better able to perceive and accommodate the special educational needs of the subjects in their classes. It is interesting to note that the beliefs of the principals (who presumably have less contact with the low IQ children than either the teachers or the STJCs) do not seem to be related to the differential placement decisions made.

The results of Study 1 are consistent with the notion that in general low IQ children are more likely to be placed in special classes if they have an IQ in the lower half of the 50-80 IQ range. For children in the upper half of this range, however, it would appear that factors 'outside' the child including teacher and school characteristics have an influence on the educational placement decisions made. At the same time, it is not possible to tell from Study 1 whether the differences between the N-R and S-C groups are related to the referral or placement of low IQ children, since the S-C teachers have both referred their subjects for assessment as well as having them transferred to a special class.

In Study 2, the R-SC and N-R groups differ in that R-SC subjects have merely been referred for special class placement. It should thus be possible in a comparison of teachers who have never referred low IQ children and teachers who have referred such children for special class placement, to locate differences associated with the referrals. The comparison between N-R and R-SC groups, however, revealed no differences between teachers, principals, or STJCs of children who were referred versus those who were not referred. The second set of comparisons in Study 2 were made between the R-SC and S-C groups. No differences between the teachers or principals were apparent, although the results for STJCs revealed several differences between the STJCs of R-SC and S-C boys. In comparison with the STJCs of R-SC boys, the STJCs of S-C boys did not feel the support provided by the School Psychological Service was adequate to enable teachers to cope with low IQ children in

a regular class, they felt more strongly that such children placed undue demands on the teacher's time, and to a lesser degree that a low IQ child impedes the progress of other children in a regular class. It is noticeable that in both Study 1 and Study 2 the beliefs of the principals regarding special classes/mainstreaming did not seem to be related to the differential placement decisions. Moreover, the differences between the N-R and S-C groups that were found in Study 1 also tended to characterize the N-R and R-SC groups, and the R-SC and S-C groups in Study 2, although the differences were not significant. There is thus a suggestion of a consistent pattern of intergroup teacher differences in both studies. The small numbers in the sample and the resultant low statistical power of the tests undertaken, however, would have tended to mask this pattern (i.e. with respect to the significance of mean differences). Consequently the differences that were obtained between teachers and STJCs, while not always significant, seem worth noting. At the same time, the differences obtained between teachers who refer (R-SC), and those who do not refer (N-R), does not seem strong and it seems likely that factors other than the ability of the children and the characteristics of the teacher and the school situation are involved in the referral of children for special class placement. The differences between teachers and STJCs of children who are placed in special classes versus those who are referred but not transferred, seem somewhat more pronounced and consistent than the differences between the N-R and R-SC groups. It would thus appear that factors involved in the transfer of

a low IQ child to a special class (rather than referral) are probably reflected in the differences between the N-R and S-C groups which were obtained in Study 1.

In summary, the results of Studies 1 and 2 are consistent with the notion that low IQ children are most likely to be placed in special classes if their IQs are within the lower half of the 50-80 IQ range. Low IQ children are also more likely to be transferred to special classes if they are placed with teachers who do not feel personally and situationally effective in coping with low IQ children in regular classes, who possess a small proportion of low achievers in their classes, who perceive such children unfavourably on a variety of factors relating to the children's adequacy, and who are unmarried. The extent to which the STJCs believe that the support provided by themselves or the principal is adequate to enable low IQ children to be retained and effectively accommodated in regular classes, also seems a relevant factor in the differential educational decisions made. Teacher, class and school characteristics thus seem to be involved in the differential educational decisions involving low IQ children, and in particular in the decision of whether or not a child will be transferred to a special class.

Limitations of the Present Study

A variety of methodological problems preclude straightforward interpretation of the findings of Studies 1 and 2. The essentially exploratory nature of the study necessitated the development of instruments to gauge the attitudes and beliefs of the teachers, principals, and STJCs. The

pioneering nature of the scales which were developed must be acknowledged, and it is possible that a number of important factors were not included in the scales, and that the scales were insufficiently sensitive to detect a number of subtle, but nonetheless important intergroup differences which may have been present.

The small size of the research sample is undoubtedly an additional problem, although it is difficult to see how it could be overcome. The total number of seven and eight year old children placed in special classes each year in Christchurch is normally relatively small, as is the number of 50-80 IQ children who are tested by school psychologists but remain in regular classes. It is also difficult administratively, as well as extremely time consuming, to locate children of 50-80 IQ who have never been referred to the Psychological Service, although it is possible that alternative screening tests may have located the N-R group more efficiently than those used in the present study. All of these factors no doubt contributed to the relatively small size of the research sample. Indeed it would appear that a study of this nature in a city the size of Christchurch must inevitably be focused on a small sample. It could be that multivariate statistics are not appropriate with such small samples. As Harris (1975) notes, however, there is no information available on the extent to which small samples influence multivariate analyses, but with univariate statistics the influence of small samples has been shown to be relatively minor especially where approximately equal cell sizes are available. Moreover, the alternative approach of forsaking multivariate analyses in an essentially

multivariate context because of the sample size, would seem to be a case of "throwing the baby out with the bath water". In short, there seems to be no alternative but to use multivariate analyses even though the data present problems. Undoubtedly, the smallness of the sample size reduced the power of the statistical tests used, but it is difficult to see how this problem could have been overcome in a study of this nature.

The retrospective nature of the data for the S-C and R-SC subjects also raises a variety of difficulties. It is possible that the teachers' beliefs may have changed considerably in the period following the decision to transfer children to special classes or to retain them in regular classes. Moreover, the assumption was made throughout the study that the decisions made with respect to the children concerned, stemmed from the differential beliefs held by their teachers. It is equally likely, however, that the teachers beliefs may have changed <u>because</u> of the decisions reached rather than vice versa. This problem cannot be easily overcome. Teachers' beliefs could be surveyed prior to, as well as after psychological assessment of the child. Such a survey would, however, be administratively difficult and extremely time consuming. Moreover, the teacher-belief survey time would not be constant for all subjects and thus would almost certainly be confounded with the subsequent placement decisions made.

A further problem is the difficulty of gauging the actual reasons why S-C and R-SC teachers referred their subjects to the Psychological Service. In all cases, at the time of referral the teachers had specified "special class placement"

rather than "educational guidance" as the reason for referral. It might be possible to discern the specific intent of the teachers at the time of referral, but it clearly wasn't possible to do this in the present investigation. A related difficulty is the possibility that the placement decisions derived mostly from the psychologists reactions to the lower IQs of the S-C subjects. It should be noted, however, that some S-C children had higher IQs than some of the N-R and R-SC children. There did not appear to be any intergroup difference in terms of the numbers of children tested by psychologists versus organizers of special classes, or in terms of the numbers tested by particular psychologists or organizers. A logical next step would be to examine the attitudes and beliefs of particular psychologists or organizers and to determine the extent to which such beliefs, in conjunction with teacher and school characteristics, are related to placement decisions. The use of almost equal numbers of boys and girls in the S-C and R-SC groups may also be a problem. This admission pattern is probably atypical in that boys far outnumber girls in Christchurch special classes. Since boys usually present more management problems, etc., the relatively large number of girls in the present sample could well have minimized intergroup differences which (in other years) typically obtain between S-C, R-SC and N-R teachers, principals, and STJCs.

Lastly, the present investigation was focused on seven and eight year old children, as this is the age group in which most special class admissions occur. The results are thus generalizable only to children in this age group. It

needs to be noted that the assumption that N-R, R-SC, and S-C groups are mutually exclusive is valid only at the time of the present investigation. Indeed, it is quite possible that some of the N-R subjects will later be referred for special class, and that some R-SC children will subsequently be transferred to special classes. Differential decisions made at later age levels, however, could well be a function of factors which are quite different from those documented in the present investigation.

Implications for Education

The findings of the present study that teachers, classroom and school factors influence the likelihood that low IQ children will be transferred to special classes preclude an unqualified acceptance of what MacMillan, Jones and Meyers (1976) refer to as a "wave of well intended, but sometimes naive acceptance of mainstreaming and its implementations". While it seems preferable to retain mildly retarded children in the mainstream of the school rather than segregate them in special classes, the issue of segregation versus mainstreaming appears to be much less important than the need to determine the teacher and situational characteristics which are most likely to facilitate optimal academic, social and emotional development of low IQ children within the mainstream. Moreover these factors must be taken into account in any evaluation of special educational provisions for mildly retarded children. If mainstreaming is to become an effective educational alternative the support which enables teachers to cope adequately with low IQ children in their classes must be

provided as an integral component of such programmes.

Furthermore if, as the present study indicates, factors 'outside' children influence the likelihood that they will be transferred to special classes, attempts to determine special learning difficulties, deficits, etc., of special class children per se may well be doomed to relative failure. The particular factors which differentiate special class children from their 'normal' peers may often have more to do with situational variables than with differences 'within' the child. Indeed, if special class programmes are geared to those children with obvious and specifiable learning difficulties the children who do not have such difficulties would almost certainly be better in alternative provisions. In such circumstances Binet and Simon's (1905) caveat "to be a member of a special class can never be a mark of distinction, and such as do not merit it, must be spared the record" would seem as appropriate today as it was at the turn of the century.

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APPENDICES

APPENDIX A

Means and standard deviations of TCI, PSAI and additional data for teachers, principals and STJCs.

Tables 21-38

Table 21

Means and Standard Deviations of Teacher Variables for N-R and S-C Groups

Group	Class Size	Low-Achv	Behv-Prob	School Size	Principal	Marital	Age	Parent	Experience
N-R (N=16) $\bar{X}$	26.69	2.50	1.31	548.94	0.62	0.81	2.19	0.37	8.37
sd	5.31	0.97	0.48	124.79	0.50	0.40	1.17	0.50	7.61
S-C (N=16) $\bar{X}$	30.56	1.87	1.37	474.94	0.56	0.37	2.50	0.19	15.31
sd	6.57	0.50	0.50	149.86	0.51	0.50	1.21	0.40	13.31

	Qualif-ications	Contact 'Sc	Referrals	Anxiety	Extra-Version	PSE	T&E	Impede	Adequacy	Isolation
N-R (N=16) $\bar{X}$	1.50	2.00	1.69	5.94	4.56	15.81	5.06	5.69	27.25	3.06
sd	0.81	0.97	0.60	1.44	1.93	3.56	1.61	1.54	3.77	0.57
S-C (N=16) $\bar{X}$	1.12	2.06	2.00	5.25	4.50	13.19	4.31	4.94	30.12	2.87
sd	0.34	0.85	0.52	1.29	2.25	2.26	1.19	1.44	4.53	0.96

Table 22

Means and Standard Deviations of Teacher Variables for Groups N-R and RS-C

Group		Class Size	Low-Achv	Behv-Probs	School Size	Principal	Marital	Age	Parent	Experience
N-R (N=16)	$\bar{X}$	28.69	2.50	1.31	548.94	0.62	0.81	2.19	0.37	8.37
	sd	5.31	0.97	0.48	124.79	0.50	0.40	1.17	0.50	7.61
R-SC (N=16)	$\bar{X}$	27.50	1.81	1.06	483.94	0.50	0.75	2.06	0.44	7.12
	sd	8.95	0.75	0.44	246.37	0.52	0.45	1.12	0.51	6.63

		Qualif-ications	Contact Sc	Referrals	Anxiety	Extra-Version	Pse	T&E	Impede	Adequacy	Isolation
N-R (N=16)	$\bar{X}$	1.50	2.00	1.69	5.94	4.56	15.81	5.06	5.69	27.25	3.06
	sd	0.82	0.97	0.60	1.44	1.93	3.56	1.61	1.54	3.77	0.57
R-SC (N=6)	$\bar{X}$	1.44	2.12	1.81	5.37	4.81	14.19	4.50	5.37	28.50	3.00
	sd	0.63	0.88	0.54	2.09	2.59	3.64	2.00	1.20	3.18	1.03

Table 23

Means and Standard Deviations of Teacher Variables for Groups R-SC and S-C

Group	Class Size	Low-Achv	Behv-Prob	School Size	Principal	Marital	Age	Parent	Experience
R-SC (N=16) $\bar{X}$	27.50	1.81	1.06	483.94	0.50	0.75	2.06	0.44	7.12
sd	8.95	0.75	0.44	246.37	0.52	0.45	1.12	0.51	6.63
S-C (N=16) $\bar{X}$	30.56	1.87	1.37	474.94	0.56	0.37	2.50	0.19	15.31
sd	6.57	0.50	0.50	149.86	0.51	0.50	1.21	0.40	13.31

	Qualif-ications	Contact Sc	Referrals	Anxiety	Extra-Version	Pse	T&E	Impede	Adequacy	Isolation
R-SC (N=16) $\bar{X}$	1.44	2.12	1.81	5.37	4.81	14.19	4.50	5.37	28.50	3.00
sd	0.63	0.88	0.54	2.09	2.59	3.64	2.00	1.20	3.18	1.03
S-C (N=16) $\bar{X}$	1.12	2.06	2.00	5.25	4.50	13.19	4.31	4.94	30.12	2.87
sd	0.34	0.85	0.52	1.29	2.25	2.26	1.19	1.44	4.53	0.96

Table 24

Means and Standard Deviations of Principal Variables for N-R and S-C Groups

Group	PSAI Item 1	2	3	4	5	6
N-R (N=16)	3.31	3.44	2.62	2.56	2.62	2.94
	1.14	1.09	1.02	0.73	0.81	1.24
S-C (N=16)	3.25	3.25	2.37	2.81	2.75	2.81
	0.68	1.00	0.62	0.65	0.58	0.98

	PSAI Item 7	8	9	10	11	12	13
N-R (N=16)	2.19	2.69	3.12	2.50	2.75	1.62	0.62
	0.65	0.95	1.15	0.63	0.57	1.15	0.50
S-C (N=16)	2.56	2.31	2.62	2.56	3.00	1.37	0.62
	0.89	0.87	0.88	0.51	0.00	1.02	0.50

Table 25

Means and Standard Deviations of Principal Variables for N-R and R-SC Groups

Group	PSAI Item 1	2	3	4	5	6
N-R (N=16)	3.31	3.44	2.62	2.56	2.62	2.94
	1.14	1.09	1.02	0.73	0.81	1.24
R-SC (N=16)	3.69	3.19	2.25	2.87	2.69	2.94
	0.87	0.98	0.93	0.62	1.01	1.00

	PSAI Item 7	8	9	10	11	12	13
N-R (N=16)	2.19	2.69	3.12	2.50	2.75	1.62	0.62
	0.65	0.95	1.15	0.63	0.57	1.15	0.50
R-SC (N=16)	2.06	2.50	2.87	2.56	2.81	1.56	0.44
	0.57	0.82	0.81	0.73	0.40	0.73	0.51

Table 26

Means and Standard Deviations of Principal Variables for R-SC and S-C Groups

Group		PSAI Item 1	2	3	4	5	6
R-SC (N=16)	$\bar{X}$	3.69	3.19	2.25	2.87	2.69	2.94
	sd	0.87	0.98	0.93	0.62	1.01	2.81
S-C (N=16)	$\bar{X}$	3.25	3.25	2.37	2.81	2.75	2.81
	sd	0.68	1.00	0.62	0.65	0.58	0.98

		PSAI Item 7	8	9	10	11	12	13
R-SC (N=16)	$\bar{X}$	2.06	2.50	2.87	2.56	2.81	1.56	0.44
	sd	0.57	0.82	0.81	0.73	0.40	0.73	0.51
S-C (N=16)	$\bar{X}$	2.56	2.31	2.62	2.56	3.00	1.37	0.62
	sd	0.89	0.87	0.88	0.51	0.00	1.02	0.50

Table 27

Means and Standard Deviations of STJC Variables for N-R and S-C Groups

Group	PSAI Item 1	2	3	4	5	6
N-R (N=16)	2.94	2.31	1.81	3.19	3.06	2.81
	0.57	0.87	0.75	0.83	0.85	0.98
S-C (N=16)	3.12	3.19	2.37	2.62	2.62	2.87
	0.72	1.11	1.09	1.02	1.02	0.81

	PSAI Item 7	8	9	10	11	12	13
N-R (N=16)	2.12	1.87	2.81	2.19	2.75	1.31	0.75
	0.96	1.15	0.65	0.98	0.45	0.60	0.45
S-C (N=16)	1.62	2.50	2.06	2.37	2.62	1.56	0.68
	0.72	1.09	0.44	0.88	0.50	0.81	0.48

Table 28

Means and Standard Deviations of STJC Variables for N-R and R-SC Groups

Group	PSAI Item 1	2	3	4	5	6
N-R (N=16)	2.94	2.31	1.81	3.19	3.06	2.81
	0.57	0.87	0.75	0.83	0.85	0.98
R-SC (N=16)	3.00	3.00	2.06	2.94	2.62	3.00
	0.89	1.03	1.00	0.77	0.62	1.15

	PSAI Item 7	8	9	10	11	12	13
N-R (N=16)	2.12	1.87	2.81	2.19	2.75	1.31	0.75
	0.96	1.15	0.65	0.98	0.45	0.60	0.45
RS-C (N=16)	1.87	2.12	2.62	2.37	2.44	1.44	0.69
	0.88	1.02	0.81	0.81	0.63	1.03	0.48

Table 29

Means and Standard Deviations of STJC Variables for R-SC and S-C Groups

Group	PSAI Item 1	2	3	4	5	6
R-SC (N=16)	3.00	3.00	2.06	2.94	2.62	3.00
	0.89	1.03	1.00	0.77	0.62	1.55
S-C (N=16)	3.12	3.19	2.37	2.62	2.62	2.87
	0.72	1.11	1.09	1.02	1.02	0.81

	PSAI Item 7	8	9	10	11	12	13
R-SC (N=16)	1.87	2.12	2.62	2.37	2.44	1.44	0.69
	0.88	1.02	0.81	0.81	0.63	1.03	0.48
S-C (N=16)	1.62	2.50	2.06	2.37	2.62	1.56	0.68
	0.72	1.09	0.44	0.88	0.50	0.81	0.48

Table 30

Means and Standard Deviations of Teacher Variables for N-R and S-C Groups: Separate Sex Groups

Group		Class Size	Low-Achv	Behv-Prob	School Size	Principal	Marital	Age	Parent	Experience
N-R boys (N=7)	$\bar{X}$	28.29	2.43	1.00	535.86	0.17	0.86	2.71	0.43	10.29
	sd	5.62	1.13	0.00	173.28	0.49	0.38	1.11	0.53	7.39
S-C boys (N=9)	$\bar{X}$	32.44	2.00	1.44	537.56	0.44	0.44	2.67	0.22	17.11
	sd	3.47	0.50	0.53	103.15	0.53	0.53	1.22	0.44	15.54
N-R girls (N=9)	$\bar{X}$	29.00	2.56	1.56	559.11	0.56	0.78	1.78	0.33	6.89
	sd	5.38	0.88	0.53	80.06	0.53	0.44	1.09	0.50	7.88
S-C girls (N=7)	$\bar{X}$	28.14	1.71	1.29	394.43	0.71	0.29	2.29	0.14	13.00
	sd	8.93	0.49	0.49	168.87	0.49	0.49	1.25	0.38	10.49

		Qualif-ications	Contact Sc	Referrals	Anxiety	Extra-Version	PSE	T&E	Impede	Adequacy	Isolation
N-R boys (N=7)	$\bar{X}$	1.43	1.71	2.00	5.71	3.43	16.43	5.00	6.14	26.14	2.86
	sd	0.79	0.95	0.57	1.50	1.40	3.60	1.91	1.77	2.11	0.38
S-C boys (N=9)	$\bar{X}$	1.11	1.78	2.00	5.11	4.22	12.33	4.22	5.11	30.44	3.00
	sd	0.33	0.83	0.50	1.17	2.44	2.45	0.97	1.17	4.61	1.12
N-R girls (N=9)	$\bar{X}$	1.56	2.22	1.44	6.11	5.44	15.33	5.11	5.33	28.11	3.22
	sd	0.88	0.97	0.53	1.45	1.88	3.67	1.45	1.32	4.62	0.67
S-C girls (N=7)	$\bar{X}$	1.14	2.43	2.00	5.43	4.86	14.29	4.43	4.71	29.71	2.71
	sd	0.38	0.79	0.58	1.51	2.12	1.50	1.51	1.80	4.75	0.76

Table 31

Means and Standard Deviations of Teacher Variables for Groups N-R and R-SC: Separate Sex Groups

Group	Class Size	Low-Achv	Behv-Prob	School Size	Principal	Marital	Age	Parent	Experience
N-R boys (N=7) $\bar{X}$	28.28	2.43	1.00	535.86	0.71	0.86	2.71	0.43	10.28
sd	5.62	1.13	0.00	173.28	0.49	0.38	1.11	0.53	7.39
R-SC boys (N=9) $\bar{X}$	27.22	1.78	1.00	516.11	0.33	0.89	2.33	0.56	8.67
sd	11.05	0.83	0.50	268.05	0.50	0.33	1.22	0.53	8.31
N-R girls (N=9) $\bar{X}$	29.00	2.56	1.56	559.11	0.56	0.78	1.78	0.33	6.89
sd	5.38	0.88	0.53	80.06	0.53	0.44	1.09	0.50	7.88
R-SC girls (N=7) $\bar{X}$	27.86	1.86	1.14	442.57	0.71	0.57	1.74	0.28	5.14
sd	6.09	0.69	0.38	228.91	0.49	0.53	0.95	0.48	3.13

	Qualif-ications	Contact Sc	Referrals	Anxiety	Extra-Version	PSE	T&E	Impede	Adequacy	Isolation
N-R boys (N=7) $\bar{X}$	1.43	1.71	2.00	5.71	3.43	16.43	5.00	6.14	26.14	2.86
sd	0.79	0.95	0.57	1.50	1.40	3.60	1.91	1.77	2.12	0.38
R-SC boys (N=9) $\bar{X}$	1.44	2.11	1.89	6.00	5.11	12.89	4.33	5.00	28.89	3.33
sd	0.73	0.78	0.60	2.12	3.26	3.14	1.94	1.22	2.93	1.00
N-R girls (N=9) $\bar{X}$	1.56	2.22	1.44	6.11	5.44	15.33	5.11	5.33	28.11	3.22
sd	0.88	0.97	0.53	1.45	1.88	3.67	1.45	1.32	4.62	0.67
R-SC girls (N=7) $\bar{X}$	1.43	2.14	1.71	4.57	4.43	15.86	4.71	5.86	28.00	2.57
sd	0.53	1.07	0.49	1.90	1.51	3.76	2.21	1.07	3.65	0.98

Table 32

Means and Standard Deviations of Teacher Variables for R-SC and S-C Group: Separate Sex Groups

Group	Class Size	Low-Achv	Behv-Prob	School Size	Principal	Marital	Age	Parent	Experience
R-SC boys (N=9) $\bar{X}$	27.22	1.78	1.00	516.11	0.33	0.89	2.33	2.33	8.67
sd	11.05	0.83	0.50	268.05	0.50	0.33	1.22	1.22	8.31
S-C boys (N=9) $\bar{X}$	32.44	2.00	1.44	537.56	0.44	0.44	2.67	2.67	17.11
sd	3.47	0.50	0.53	103.15	0.53	0.53	1.22	1.22	15.54
R-SC girls (N=7) $\bar{X}$	27.86	1.86	1.14	442.57	0.71	0.57	1.71	1.71	5.14
sd	6.09	0.69	0.38	228.91	0.49	0.53	0.95	0.95	3.13
S-C girls (N=7) $\bar{X}$	28.14	1.71	1.29	394.43	0.71	0.29	2.29	2.89	13.00
sd	8.93	0.49	0.49	168.87	0.49	0.49	1.25	1.25	10.49

	Qualif-ications	Contact Sc	Referrals	Anxiety	Extra-Version	PSE	T&E	Impede	Adequacy	Isolation
R-SC boys (N=9) $\bar{X}$	1.44	2.11	1.89	6.00	5.11	12.89	4.33	5.00	28.89	3.33
sd	0.73	0.78	0.60	2.12	3.26	3.14	1.94	1.22	2.93	1.00
S-C boys (N=9) $\bar{X}$	1.11	1.78	2.00	5.11	4.22	12.33	4.22	5.11	30.44	3.00
sd	0.33	0.83	0.50	1.17	2.44	2.45	0.97	1.17	4.61	1.12
R-SC girls (N=7) $\bar{X}$	1.43	2.14	1.71	4.57	4.43	15.86	4.71	5.86	28.00	2.57
sd	0.53	1.07	0.49	1.90	1.51	3.76	2.21	1.07	3.65	0.98
S-C girls (N=7) $\bar{X}$	1.14	2.43	2.00	5.43	4.86	14.29	4.43	4.71	29.71	2.74
sd	0.38	0.79	0.57	1.51	2.12	1.50	1.51	1.80	4.75	0.76

Table 33

Means and Standard Deviations of Principal Variables for N-R and S-C Groups: Separate Sex Groups

	PSAI Item					
Group	1	2	3	4	5	6
N-R boys (N=7)	3.29	3.29	2.29	2.86	2.29	2.71
	1.38	0.95	0.95	0.69	0.95	1.11
S-C boys (N=9)	3.33	3.22	2.22	2.89	2.67	3.22
	0.71	0.83	0.67	0.33	0.71	0.83
N-R girls (N=9)	3.33	3.56	2.89	2.33	2.89	3.11
	1.00	1.24	1.05	0.71	0.60	1.36
S-C girls (N=7)	3.14	3.29	2.57	2.71	2.86	2.29
	0.69	1.25	0.53	0.95	0.38	0.95

	PSAI Item						
Group	7	8	9	10	11	12	13
N-R boys (N=7)	2.29	2.57	3.14	2.29	2.43	2.29	0.71
	0.76	1.13	1.34	0.76	0.79	1.50	0.49
S-C boys (N=9)	2.56	2.33	2.11	2.33	3.00	1.11	0.56
	1.13	0.50	0.33	0.50	0.00	0.33	0.53
N-R girls (N=9)	2.11	2.78	3.11	2.67	3.00	1.11	0.56
	0.60	0.83	1.05	0.50	0.00	0.33	0.53
S-C girls (N=7)	2.57	2.29	3.29	2.86	3.00	1.71	0.71
	0.53	1.25	0.95	0.38	0.00	1.50	0.48

Table 34

Means and Standard Deviations of Principal Variables for N-R and R-SC Groups: Separate Sex Groups

Group	PSAI Item 1	2	3	4	5	6
N-R boys (N=7) $\bar{X}$	2.86	2.86	1.86	3.00	2.71	3.14
sd	0.69	1.07	1.07	0.82	0.76	1.21
R-SC boys (N=9) $\bar{X}$	3.22	2.89	1.67	3.11	2.67	3.22
sd	0.83	1.05	0.71	0.78	0.71	1.09
N-R girls (N=9) $\bar{X}$	3.00	1.89	1.78	3.33	3.33	2.56
sd	0.50	0.33	0.44	0.86	0.87	0.73
R-SC girls (N=7) $\bar{X}$	2.71	3.14	2.57	2.71	2.57	2.71
sd	0.95	1.07	1.13	0.76	0.53	1.25

Group	PSAI Item 7	8	9	10	11	12	13
N-R boys (N=7) $\bar{X}$	2.14	2.57	3.00	2.29	2.57	1.43	0.86
sd	1.34	1.40	0.82	0.95	0.53	0.79	0.38
R-SC boys (N=9) $\bar{X}$	2.11	1.89	2.78	2.44	2.44	1.11	0.67
sd	0.93	0.93	0.67	0.73	0.73	0.33	0.50
N-R girls (N=9) $\bar{X}$	2.11	1.33	2.67	2.11	2.89	1.22	0.67
sd	0.60	0.50	0.50	1.05	0.33	0.44	0.50
R-SC girls (N=7) $\bar{X}$	1.57	2.43	2.43	2.29	2.43	1.86	0.71
sd	0.53	1.13	0.98	0.95	0.53	1.46	0.49

Table 35

Means and Standard Deviations of Principal Variables for R-SC and S-C Groups: Separate Sex Groups

Group		PSAI Item 1	2	3	4	5	6
R-SC boys (N=9)	$\bar{X}$	3.78	3.67	2.56	2.78	2.89	2.89
	sd	0.83	0.70	1.01	0.67	1.05	1.17
S-C boys (N=9)	$\bar{X}$	3.33	3.22	2.22	2.89	2.67	3.22
	sd	0.71	0.83	0.67	0.33	0.71	0.83
R-SC girls (N=7)	$\bar{X}$	3.57	2.57	1.86	3.00	2.43	3.00
	sd	0.98	0.98	0.69	0.58	0.98	0.82
S-C girls (N=7)	$\bar{X}$	3.14	3.29	2.57	2.71	2.86	2.29
	sd	0.69	1.25	0.53	0.95	0.38	0.95

Group		PSAI Item 7	8	9	10	11	12	13
R-SC boys (N=9)	$\bar{X}$	2.00	2.78	3.11	2.44	2.89	1.67	0.33
	sd	0.50	0.97	0.78	0.73	0.33	0.87	0.50
S-C boys (N=9)	$\bar{X}$	2.56	2.33	2.11	2.33	3.00	1.11	0.56
	sd	1.13	0.50	0.33	0.50	0.00	0.33	0.53
R-SC girls (N=7)	$\bar{X}$	2.14	2.14	2.57	2.71	2.71	1.43	0.57
	sd	0.69	0.38	0.79	0.76	0.49	0.53	0.53
S-C girls (N=7)	$\bar{X}$	2.57	2.29	3.29	2.86	3.00	1.71	0.71
	sd	0.53	1.25	0.95	0.38	0.00	1.50	0.49

Table 36

Means and Standard Deviations of STJC Variables for N-R and S-C Groups: Separate Sex Groups

	PSAI Item					
Group	1	2	3	4	5	6
N-R boys (N=7) $\bar{X}$	2.86	2.86	1.86	3.00	2.71	3.14
sd	0.69	1.07	1.07	0.82	0.76	1.21
S-C boys (N=9) $\bar{X}$	3.44	3.78	2.56	2.89	3.00	3.33
sd	0.53	0.68	1.42	1.05	1.00	0.71
N-R girls (N=9) $\bar{X}$	3.00	1.89	1.78	3.33	3.33	2.56
sd	0.50	0.33	0.44	0.87	0.87	0.73
S-C girls (N=7) $\bar{X}$	2.71	2.43	2.14	2.29	2.14	2.29
sd	0.76	1.13	0.38	0.95	0.90	0.49

	PSAI Item						
Group	7	8	9	10	11	12	13
N-R boys (N=7) $\bar{X}$	2.14	2.57	3.00	2.29	2.57	1.43	0.86
sd	1.34	1.40	0.82	0.95	0.53	0.79	0.38
S-C boys (N=9) $\bar{X}$	1.22	3.11	2.00	2.00	2.67	1.56	0.56
sd	0.44	1.05	0.00	1.00	0.50	0.53	0.53
N-R girls (N=9) $\bar{X}$	2.11	1.33	2.67	2.11	2.89	1.22	0.67
sd	0.60	0.50	0.50	1.05	0.33	0.44	0.50
S-C girls (N=7) $\bar{X}$	2.14	1.71	2.14	2.86	2.57	1.57	0.86
sd	0.69	0.49	0.69	0.38	0.53	1.13	0.38

Table 37

Means and Standard Deviations of STJC Variables for N-R and R-SC Groups: Separate Sex Groups

	PSAI Item					
Group	1	2	3	4	5	6
N-R Boys (N=7) $\bar{X}$	3.29	3.29	2.29	2.86	2.29	2.71
sd	1.38	0.95	0.95	0.69	0.95	1.11
R-SC boys (N=9) $\bar{X}$	3.78	3.67	2.56	2.78	2.89	2.89
sd	0.83	0.71	1.01	0.67	1.05	1.17
N-R girls (N=9) $\bar{X}$	3.33	3.56	2.89	2.33	2.89	3.11
sd	1.00	1.24	1.05	0.71	0.60	1.36
R-SC girls (N=7) $\bar{X}$	3.57	2.57	1.86	3.00	2.43	3.00
sd	0.98	0.98	0.69	0.58	0.98	0.82

	PSAI Item						
Group	7	8	9	10	11	12	13
N-R boys (N=7) $\bar{X}$	2.29	2.57	3.14	2.29	2.43	2.29	0.71
sd	0.76	1.13	1.34	0.76	0.79	1.50	0.49
R-SC boys (N=9) $\bar{X}$	2.00	2.78	3.11	2.44	2.89	1.67	0.33
sd	0.50	0.97	0.78	0.73	0.33	0.87	0.50
N-R girls (N=9) $\bar{X}$	2.11	2.78	3.11	2.67	3.00	1.11	0.56
sd	0.60	0.83	1.05	0.50	0.00	0.33	0.53
R-SC girls (N=7) $\bar{X}$	2.14	2.14	2.57	2.71	2.71	1.43	0.57
sd	0.69	0.38	0.79	0.76	0.49	0.53	0.53

Table 38

Means and Standard Deviations of STJC Variables for R-SC and S-C Groups: Separate Sex Groups

	PSAI Item					
Group	1	2	3	4	5	6
R-SC boys (N=9) $\bar{X}$	3.22	2.89	1.67	3.11	2.67	3.22
sd	0.83	1.05	0.71	0.78	0.71	1.09
S-C boys (N=9) $\bar{X}$	3.44	3.78	2.56	2.89	3.00	3.33
sd	0.53	0.67	1.42	1.05	1.00	0.71
R-SC girls (N=7) $\bar{X}$	2.71	3.14	2.57	2.71	2.57	2.71
sd	0.95	1.07	1.13	0.76	0.53	1.25
S-C girls (N=7) $\bar{X}$	2.71	2.43	2.14	2.28	2.14	2.29
sd	0.76	1.13	0.38	0.95	0.90	0.49

	PSAI Item						
Group	7	8	9	10	11	12	13
R-SC boys (N=9) $\bar{X}$	2.11	1.89	2.78	2.44	2.44	1.11	0.67
sd	0.93	0.93	0.67	0.73	0.73	0.33	0.50
S-C boys (N=9) $\bar{X}$	1.22	3.11	2.00	2.00	2.67	1.56	0.56
sd	0.44	1.05	0.00	1.00	0.50	0.53	0.53
R-SC girls (N=7) $\bar{X}$	1.57	2.43	2.43	2.29	2.43	1.86	0.71
sd	0.79	1.13	0.98	0.95	0.53	1.46	0.49
S-C girls (N=7) $\bar{X}$	2.14	1.71	2.14	2.86	2.57	1.57	0.86
sd	0.69	0.49	0.69	0.38	0.53	1.13	0.38

APPENDIX B

Intercorrelation matrices of dependent variable measures for teachers, principals and STJCs.

Tables 39-50

Table 39

Intercorrelations for Teacher Variables: N-R and S-C Groups

Variables	Class Size	Low-Achv	Behv-Prob	School Size	Principal	Marital	Age	Parent	Experience
Class size	-								
Low-Achv	-06	-							
Behv-Prob	06	18	-						
School Size	31	38	07	-					
Principal	03	-04	-15	-58	-				
Marital	21	11	-21	14	-06	-			
Age	31	-13	-34	11	-15	07	-		
Parent	22	23	-14	24	-36	48	45	-	
Experience	20	-12	22	15	-15	-22	86	05	-
Qualifications	-02	-05	-18	-26	32	10	-09	08	-17
Contact Sc	-01	28	25	-20	16	02	11	36	-09
Referrals	37	-19	-03	26	10	13	61	23	48
Anxiety	-18	10	06	-05	-18	-18	-02	10	-01
Extraversion	-13	-04	04	06	-12	06	-35	15	-45
PSE	-20	34	-17	-18	34	-07	-25	-24	-08
T-E	-04	11	04	-21	07	08	15	04	12
Impede	-13	10	02	-13	21	-26	10	-22	12
Adequacy	-01	-35	11	-15	01	02	-15	03	35
Isolation	30	16	04	41	-26	08	10	01	13

Table 40

Intercorrelations for Teacher Variable: N-R and S-C Groups

Variables	Qualifications	Contact Sc	Referrals	Anxiety	Extraversion	PSE	T-E	Impede	Adequacy	Isolation
Contact Sc	03	-								
Referrals	-12	23	-							
Anxiety	27	03	-02	-						
Extraversion	01	17	-29	-37	-					
PSE	51	-08	-41	00	-11	-				
T-E	-31	08	02	-01	04	-15	-			
Impede	-03	04	12	-07	-17	08	-29	-		
Adequacy	06	04	12	04	02	-32	-22	19	-	
Isolation	-03	-19	-07	-15	18	-11	-13	-03	-07	-

Table 41

Intercorrelations for Teacher Variables: N-R and R-SC Groups

Variables	Class Size	Low-Achv	Behv-Prob	School Size	Principal	Marital	Age	Parent	Experience
Class Size	-								
Low-Achv	22	-							
Behv-Prob	47	32	-						
School Size	45	46	47	-					
Principal	26	12	08	-22	-				
Marital	24	08	11	36	-28	-			
Age	-13	-06	-20	02	-32	28	-		
Parent	20	27	17	21	-12	41	59	-	
Experience	-36	-12	-32	-23	-25	05	83	26	-
Qualifications	08	01	-25	10	15	14	06	18	-21
Contact Sc	17	26	42	20	02	06	23	25	11
Referrals	-25	-12	01	-17	07	14	45	23	46
Anxiety	-42	-23	-15	-24	-04	03	16	-06	29
Extraversion	19	20	20	04	20	-16	-37	09	-50
PSE	-19	02	-56	-05	-20	32	22	-01	26
T-E	11	-11	03	29	-42	16	35	06	28
Impede	-23	-04	-22	12	-03	02	35	-11	36
Adequacy	-14	-42	03	30	02	-19	-17	-26	-24
Isolation	34	23	24	24	06	35	-07	17	-17

Table 42

Intercorrelations for Teacher Variables: N-R and R-SC Groups

Variables	Qualifications	Contact Sc	Referrals	Anxiety	Extraversion	PSE	T-E	Impede	Adequacy	Isolation
Contact Sc	-01	-								
Referrals	-08	38	-							
Anxiety	15	10	57	-						
Extraversion	-07	-25	-37	-51						
PSE	25	-04	-12	06	-24					
T-E	-20	01	-16	-09	-16	17	-			
Impede	-09	-01	21	13	-19	35	06	-		
Adequacy	02	27	26	11	-08	-16	-21	18	-	
Isolation	-16	-22	-19	-37	29	-18	-12	-16	-27	-

Table 43

Intercorrelations for Teacher Variables: R-SC and S-C Groups

Variables	Class Size	Low-Achv	Behv-Prob	School Size	Principal	Marital	Age	Parent	Experience
Class Size	-								
Low-Achv	38	-							
Behv-Prob	37	54	-						
School Size	70	38	42	-					
Principal	-09	09	16	-33	-				
Marital	05	-12	-14	22	-26	-			
Age	-10	-42	-50	15	-40	27	-		
Parent	16	20	-07	29	-26	53	34	-	
Experience	-14	-49	-36	-05	-23	-10	80	-12	-
Qualifications	-09	17	-02	14	05	-14	09	08	-11
Contact Sc	-06	01	16	11	-02	05	-12	-07	-23
Referrals	-18	-55	-23	-16	-03	28	49	02	51
Anxiety	-41	-24	-03	-21	-35	15	08	-04	17
Extraversion	22	40	21	06	32	-16	-35	13	-41
PSE	-29	-15	-07	-18	-24	17	12	-19	11
T-E	-04	01	-15	23	-19	39	31	05	09
Impede	-24	-32	-10	-18	04	-13	13	-21	17
Adequacy	-16	-27	-17	-21	-04	-02	-13	07	-27
Isolation	46	26	23	35	-10	12	08	35	05

Table 44

Intercorrelations for Teacher Variables: R-SC and S-C Groups

Variables	Qualifications	Contact Sc	Referrals	Anxiety	Extraversion	PSE	T-E	Impede	Adequacy	Isolation
Contact Sc	07	-								
Referrals	-21	03	-							
Anxiety	-01	-06	31	-						
Extraversion	-16	07	-26	-59	-					
PSE	01	12	-10	10	-28	-				
T-E	11	05	-28	-25	-09	57				
Impede	03	-18	08	16	-12	25	05	-		
Adequacy	11	19	21	17	-15	-14	-39	02	-	
Isolation	-12	-13	-10	-30	34	-13	-06	-36	-24	-

Table 45

Intercorrelations for PSAI Items* for Principals of N-R and S-C Groups

PSAI Items+	1	2	6	8	10	11	12	13	3	4	5	7	9
1	-												
2	062	-											
6	010	212	-										
8	284	484	-205	-									
10	513	-017	032	313	-								
11	014	013	257	-075	206	-							
12	038	-058	-362	-138	-009	-471	-						
13	-251	-243	-107	-286	-220	-219	269	-					
3	155	253	160	447	-157	251	-381	013	-				
4	371	068	390	008	-064	-225	-181	207	373	-			
5	102	093	030	-171	-387	163	-227	-050	408	228	-		
7	450	148	-235	625	379	-347	-092	003	113	364	-143	-	
9	182	355	-191	424	-272	-145	039	1-9	507	242	240	225	-

*Decimals have been omitted

+To facilitate interpretation, items of like polarity were adjusted thus changing variable order

Table 46

Intercorrelations for PSAI Items* for Principals of N-R and R-SC Groups

PSAI Items+	1	2	6	8	10	11	12	13	3	4	5	7	9
1	-												
2	-041	-											
6	119	053	-										
8	-019	482	-101	-									
10	273	-076	061	259	-								
11	005	-082	050	-232	002	-							
12	-049	-116	-275	-413	-297	-298	-						
13	-380	106	-108	-289	-403	-100	338	-					
3	-092	198	170	379	-407	276	-227	149	-				
4	403	-057	333	170	-143	-438	-043	075	210	-			
5	144	277	088	-046	-324	-094	130	057	095	320	-		
7	136	017	-566	446	087	-191	057	049	159	081	-118	-	
9	112	618	-145	658	-065	-166	-111	215	404	428	323	451	-

*Decimals have been omitted

+To facilitate Interpretation, items of like polarity were adjusted thus changing variable order

Table 47

Intercorrelations for PSAI Items* for Principals of R-SC and S-C Groups

PSAI Items+	1	2	6	8	10	11	12	13	3	4	5	7	9
1	-												
2	050	-											
6	-100	105	-										
8	090	430	-064	-									
10	302	006	004	447	-								
11	-012	-157	-273	-286	-228	-							
12	079	156	-334	-232	-291	213	-						
13	-087	-284	-377	-331	-016	115	169	-					
3	-148	-017	-099	191	-427	206	-105	176	-				
4	148	066	489	-100	084	-424	-379	070	034	-			
5	011	224	260	-069	-408	-336	-028	-167	125	339	-		
7	240	107	-204	441	466	206	-200	251	105	049	-289	-	
9	-163	274	-340	101	-108	-127	060	229	042	-082	294	-017	-

*Decimals have been omitted

+To facilitate interpretation, items of like polarity were adjusted thus changing variable order

Table 48

Intercorrelations for PSAI Items* for STJCs of N-R and S-C Groups

PSAI Items+	1	2	6	8	10	11	12	13	3	4	5	7	9
1	-												
2	113	-											
6	242	347	-										
8	350	701	522	-									
10	000	-008	070	307	-								
11	374	-358	263	-201	293	-							
12	107	003	098	272	186	-011	-						
13	-336	-182	-436	-525	-471	-249	-012	-					
3	423	105	428	403	191	193	281	-605	-				
4	627	198	429	442	040	311	-013	-513	560	-			
5	523	127	410	278	061	413	-075	-534	597	933	-		
7	256	122	128	151	036	059	-020	-047	-041	267	140	-	
9	133	172	420	294	-176	-121	-336	-256	345	389	346	567	-

* Decimals have been omitted

\+ To facilitate interpretation, items of like polarity were adjusted thus changing variable order

Table 49

Intercorrelations for PSAI Items* for STJCs of N-R and R-SC Groups

PSAI Items+	1	2	6	8	10	11	12	13	3	4	5	7	9
1	-												
2	641	-											
6	449	554	-										
8	361	634	526	-									
10	-412	-272	-439	004									
11	-469	-531	-245	-180	233	-							
12	168	232	-204	-122	083	-432	-						
13	-406	-372	-359	-368	043	331	196	-					
3	205	401	278	301	-469	-460	244	-415	-				
4	658	421	311	306	-344	-100	-003	-395	320	-			
5	357	061	156	053	-450	096	-230	-220	177	749	-		
7	258	409	473	476	001	-043	084	-085	-072	270	104	-	
9	341	529	812	649	-451	-327	-157	-389	454	364	238	510	-

*Decimals have been omitted

+To facilitate interpretation, items of like polarity were adjusted thus changing variable order

Table 50

Intercorrelations for PSAI Items* for STJCs of R-SC and S-C Groups

PSAI Items+	1	2	6	8	10	11	12	13	3	4.	5	7	9
1	-												
2	295	-											
6	557	480	-										
8	298	522	702	-									
10	-034	-063	-143	200	-								
11	-281	-642	-207	-088	519	-							
12	071	144	070	-036	259	-042	-						
13	-616	-265	-578	-496	-204	054	-013	-					
3	405	207	372	399	318	103	328	-620	-				
4	681	255	424	491	313	-004	044	-857	578	-			
5	461	074	306	336	342	228	-079	-702	457	790	-		
7	147	077	364	075	-147	078	-277	-050	-058	107	174	-	
9	464	272	698	447	-389	-182	-349	-413	240	350	298	620	-

*Decimals have been omitted

+To facilitate interpretation, items of like polarity were adjusted thus changing variable order

APPENDIX C

Results of the remainder of Study 2 multivariate analyses of variance for teachers, principals and STJCs.

Tables 51-67

Table 51

Multivariate Analysis of Variance (MANOVA) on Teacher Data for N-R and R-SC Groups: Groups Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	0.68	19.00	10.00	0.77	0.75

UNIVARIATE F TESTS

Variable	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
Class Size	0.16	9.58	0.687	0.12
Low-Achv	4.49	3.58	0.043	0.92
Behv-Prob	1.85	0.33	0.185	1.27
School Size	0.91	36567.16	0.347	-0.07
Principal	0.38	0.10	0.540	0.50
Marital	0.33	0.06	0.567	-0.04
Age	0.32	0.39	0.578	2.18
Parent	0.05	0.01	0.830	-0.92
Experience	0.43	22.29	0.515	-0.46
Qualifications	0.04	0.02	0.837	-0.39
Contact Sc	0.22	0.20	0.639	-1.22
Referrals	0.16	0.05	0.690	-0.44
Anxiety	0.98	3.10	0.330	0.63
Extraversion	0.18	0.87	0.677	0.06
Pse	1.43	17.91	0.241	1.02
T-E	0.63	2.23	0.433	-0.25
Impede	0.41	0.75	0.528	-0.78
Adequacy	1.10	13.67	0.302	0.73
Isolation	0.09	0.06	0.763	-0.32

*Canonical correlation between artificial ANOVA variables and criteria

Table 52

Multivariate Analysis of Variance (MANOVA) on Teacher Data for N-R and R-SC Groups: Sex Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	0.66	19.00	10.00	0.79	0.74

Variable	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
Class Size	0.09	5.28	0.765	-0.23
Low-Achv	0.35	0.28	0.558	-0.09
Behv-Prob	6.20	1.12	0.019	1.52
School Size	0.05	2211.12	0.816	-0.51
Principal	0.49	0.12	0.488	-0.08
Marital	1.57	0.28	0.221	-0.47
Age	3.66	4.50	0.066	-0.77
Parent	1.07	0.28	0.310	0.17
Experience	1.65	84.50	0.210	0.43
Qualifications	0.05	0.03	0.816	0.58
Contact Sc	0.57	0.50	0.458	-0.20
Referrals	3.69	1.12	0.065	0.10
Anxiety	0.49	1.53	0.491	-0.31
Extraversion	0.63	3.12	0.433	-0.10
Pse	0.81	10.12	0.375	0.89
T-E	0.22	0.78	0.641	0.31
Impede	0.02	0.03	0.897	0.11
Adequacy	0.09	1.12	0.765	-0.06
Isolation	0.43	0.28	0.515	0.03

*Canonical correlation between artificial ANOVA variables and criteria

Table 53

Multivariate Analysis of Variance (MANOVA) on Teacher Data for N-R and R-SC Groups: Groups by Sex Interaction Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	1.64	19.00	10.00	0.21	0.87

	UNIVARIATE F TESTS			
Variable	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
Class Size	0.00	0.01	0.988	0.11
Low-Achv	0.01	0.00	0.941	0.09
Behv-Prob	1.85	0.33	0.185	-0.59
School Size	0.46	18445.24	0.503	0.59
Principal	2.27	0.57	0.143	-0.02
Marital	0.62	0.11	0.437	0.64
Age	0.16	0.20	0.691	-1.84
Parent	0.23	0.06	0.637	0.26
Experience	0.00	0.03	0.980	2.76
Qualifications	0.07	0.04	0.792	0.52
Contact Sc	0.50	0.45	0.483	0.59
Referrals	0.94	0.29	0.341	-1.18
Anxiety	2.09	6.56	0.160	0.95
Extraversion	2.90	14.33	0.100	1.01
Pse	2.60	32.51	0.118	-0.84
T-E	0.04	0.14	0.841	0.15
Impede	2.96	5.47	0.096	-0.00
Adequacy	1.30	16.07	0.264	1.06
Isolation	3.86	2.50	0.059	0.48

*Canonical correlation between artificial ANOVA variables and criteria

Table 54

Multiple Analysis of Variance (MANOVA) on Teacher Data for R-SC and S-C Groups: Groups Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	1.15	19.00	10.00	0.43	0.83

UNIVARIATE F TESTS

Variable	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
Class Size	1.18	75.03	0.286	0.72
Low-Achv	0.07	0.03	0.788	0.28
Behv-Prob	3.36	0.78	0.077	1.28
School Size	0.02	648.00	0.901	-1.23
Principal	0.12	0.03	0.728	0.13
Marital	5.04	1.12	0.033	-0.02
Age	1.10	1.53	0.303	2.67
Parent	2.31	0.50	0.140	-1.04
Experience	4.69	536.28	0.039	-0.76
Qualifications	2.85	0.78	0.103	-0.46
Contact Sc	0.04	0.03	0.840	-0.10
Referrals	0.95	0.28	0.339	-0.61
Anxiety	0.04	0.12	0.838	0.38
Extraversion	0.13	0.78	0.725	0.24
PSE	0.99	8.00	0.327	-0.47
T-E	0.09	0.28	0.757	0.35
Impede	0.87	1.53	0.358	-0.38
Adequacy	1.30	21.12	0.264	0.73
Isolation	0.13	0.12	0.722	-0.20

*Canonical correlation between artificial ANOVA variables and criteria

Table 55

Multivariate Analysis of Variance (MANOVA) on Teacher Data for R-SC and S-C Groups: Sex Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	0.64	19.00	10.00	0.81	0.74

UNIVARIATE F TESTS

Variable	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
Class Size	0.42	26.47	0.523	-0.19
Low-Achv	0.20	0.08	0.660	0.50
Behv-Prob	0.00	0.00	0.963	0.55
School Size	2.26	92421.87	0.144	-0.43
Principal	3.30	0.83	0.080	-0.54
Marital	2.00	0.45	0.168	1.74
Age	1.42	1.97	0.244	-0.17
Parent	1.10	0.24	0.301	-0.78
Experience	1.00	14.76	0.325	1.77
Qualifications	0.00	0.00	0.966	0.33
Contact Sc	1.22	0.92	0.278	-0.07
Referrals	0.20	0.06	0.657	-1.02
Anxiety	0.83	2.43	0.371	-0.13
Extraversion	0.00	0.00	0.979	0.58
Pse	5.93	47.67	0.022	-0.91
T-E	0.24	0.68	0.631	-0.25
Impede	0.24	0.42	0.630	0.18
Adequacy	0.32	5.16	0.577	0.81
Isolation	2.23	2.16	0.157	-0.04

*Canonical correlation between artificial ANOVA variables and criteria

Table 56

Multivariate Analysis of Variance (MANOVA) of Teacher Data for R-SC and S-C Groups: Groups by Sex Interaction Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	0.33	19.00	10.00	0.98	0.62

UNIVARIATE F TESTS

Variable	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
Class Size	0.76	47.98	0.392	-0.34
Low-Achv	0.62	0.26	0.437	0.64
Behv-Prob	0.77	0.18	0.388	0.34
School Size	0.23	9533.46	0.633	0.03
Principal	0.96	0.02	0.759	-0.37
Marital	0.22	0.05	0.641	0.70
Age	0.08	0.11	0.779	-0.65
Parent	0.33	0.07	0.570	-0.01
Experience	0.01	0.68	0.939	0.89
Qualifications	0.02	0.00	0.899	-0.04
Contact Sc	1.00	0.75	0.325	-0.26
Referrals	0.20	0.06	0.657	-0.11
Anxiety	2.04	6.00	0.164	-1.47
Extraversion	0.55	3.42	0.463	-0.74
Pse	0.25	2.03	0.619	0.08
T-E	0.02	0.06	0.886	-0.63
Impede	1.76	3.10	0.195	0.49
Adequacy	0.00	0.05	0.956	0.20
Isolation	0.46	0.45	0.503	-0.43

*Canonical correlation between artificial ANOVA variables and criteria

Table 57

Multivariate Analysis of Variance (MANOVA) of Principal Data for N-R and R-SC Groups: Groups Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	0.61	13.00	16.00	0.81	0.58

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	0.96	1.05	0.336	0.45
2	0.73	0.72	0.399	-1.03
3	1.26	1.14	0.271	0.59
4	1.53	0.68	0.226	-2.18
5	0.05	0.04	0.826	-0.04
6	0.01	0.01	0.939	0.75
7	0.32	0.13	0.577	-0.21
8	0.47	0.36	0.500	-0.42
9	0.63	0.64	0.432	1.73
10	0.18	0.08	0.675	-0.22
11	0.28	0.06	0.602	-1.27
12	0.23	0.18	0.637	-0.14
13	1.00	0.26	0.326	0.05

*Canonical correlation between artificial ANOVA variables and criteria

Table 58

Multivariate Analysis of Variance (MANOVA) of Principal Data for N-R and R-SC Groups: Sex Main Effect

Test of roots 1 though 1	F 0.70	df(hyp) 13.00	df(error) 16.00	p less than 0.74	R* 0.60

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	0.11	0.12	0.738	0.10
2	1.15	1.12	0.292	0.62
3	0.00	0.00	1.000	-0.32
4	0.63	0.28	0.432	0.87
5	0.04	0.03	0.847	-0.50
6	0.38	0.50	0.545	-0.30
7	0.00	0.00	1.000	-0.29
8	0.36	0.28	0.552	0.76
9	0.49	0.50	0.488	-0.49
10	1.67	0.78	0.206	-0.47
11	1.31	0.28	0.263	0.48
12	4.81	3.78	0.037	0.94
13	0.12	0.03	0.733	-0.29

*Canonical correlation between artificial ANOVA variables and criteria

Table 59

Multivariate Analysis of Variance (MANOVA) of Principal Data for N-R and R-SC Groups: Groups by Sex Interaction Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	0.85	13.00	16.00	0.61	0.64

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	0.12	0.13	0.736	0.48
2	3.75	3.67	0.063	0.02
3	3.68	3.33	0.065	0.38
4	2.47	1.10	0.127	-0.67
5	2.72	2.23	0.110	0.64
6	0.12	0.16	0.731	-0.04
7	0.50	0.20	0.485	-0.34
8	1.80	1.39	0.191	0.80
9	0.50	0.51	0.485	-0.38
10	0.05	0.02	0.821	0.10
11	5.09	1.10	0.032	0.25
12	2.19	1.73	0.150	-0.04
13	1.18	0.31	0.287	0.29

*Canonical correlation between artificial ANOVA variables and criteria

Table 60

Multivariate Analysis of Variance (MANOVA) of Principal Data for R-SC and S-C Groups: Groups Main Effect

Tests of roots 1 through 1	F 0.88	df(hyp) 13.00	df(error) 16.00	p less than 0.59	R* 0.64

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	2.36	1.53	0.135	-0.68
2	0.03	0.03	0.852	0.51
3	0.21	0.12	0.647	0.12
4	0.07	0.03	0.788	-0.25
5	0.04	0.03	0.834	0.75
6	0.13	0.12	0.716	-0.42
7	3.33	2.00	0.079	0.56
8	0.40	0.28	0.534	-0.71
9	0.94	0.50	0.341	-0.69
10	0.00	0.00	1.00	0.54
11	3.40	0.28	0.076	0.26
12	0.36	0.28	0.555	-0.29
13	1.07	0.28	0.310	0.09

* Canonical correlation between artifical ANOVA variables and criteria

Table 61

Multivariate Analysis of Variance (MANOVA) of Principal Data for R-SC and S-C Groups: Sex Main Effect

Tests of roots 1 through 1	F 1.31	df(hyp) 13.00	df(error) 16.00	p less than 0.30	R* 0.72

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	0.48	0.31	0.495	0.50
2	2.38	2.10	0.134	0.17
3	0.41	0.24	0.527	-1.00
4	0.01	0.00	0.919	0.11
5	0.21	0.14	0.653	-0.10
6	1.45	1.34	0.238	0.34
7	0.08	0.05	0.776	-0.63
8	1.29	0.92	0.265	1.68
9	1.49	0.79	0.232	-0.43
10	3.30	1.24	0.080	-1.45
11	0.72	0.06	0.402	0.73
12	0.33	0.26	0.568	-0.58
13	1.18	0.31	0.287	0.98

*Canonical correlation between artifical ANOVA variables and criteria

Table 62

Multivariate Analysis of Variance (MANOVA) of Principal Data for R-SC and S-C Groups: Groups by Sex Interaction Effect

Tests of roots	F	df(dyp)	df(error)	p less than	R*
1 through 1	1.67	13.00	16.00	0.16	0.76

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	0.00	0.00	0.978	-0.16
2	3.00	2.64	0.094	0.21
3	3.70	2.16	0.065	1.13
4	0.73	0.31	0.400	-0.05
5	1.20	0.83	0.283	0.29
6	2.34	2.16	0.137	-0.13
7	0.05	0.03	0.820	-0.13
8	0.96	0.68	0.336	-0.83
9	10.86	5.79	0.003	0.64
10	0.34	0.13	0.565	1.41
11	0.72	0.06	0.402	0.14
12	1.77	1.39	0.194	0.49
13	0.05	0.01	0.830	-0.65

*Canonical correlation between artifical ANOVA variables and criteria

Table 63

Multivariate Analysis of Variance (MANOVA) of STJC Data for N-R and R-SC Groups: Groups Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	0.76	13.00	16.00	0.68	0.62

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	0.02	0.01	0.883	-0.40
2	3.88	3.25	0.059	0.85
3	1.00	0.72	0.327	0.47
4	0.78	0.51	0.386	-0.13
5	2.39	1.29	0.134	0.03
6	0.10	0.11	0.757	0.76
7	0.74	0.64	0.397	-0.06
8	0.33	0.33	0.569	0.12
9	0.76	0.42	0.389	-1.40
10	0.26	0.22	0.617	0.19
11	2.23	0.68	0.147	-0.42
12	0.29	0.20	0.593	-0.38
13	0.18	0.04	0.675	0.17

*Canonical correlation between artificial ANOVA variables and criteria

Table 64

Multivariate Analysis of Variance (MANOVA) of STJC Data for N-R and R-SC Groups: Sex Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	0.67	13.00	16.00	0.77	0.59

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	0.50	0.28	0.487	0.03
2	1.82	1.53	0.188	0.42
3	1.56	1.12	0.221	-0.39
4	0.00	0.00	1.000	0.73
5	1.44	0.78	0.239	-0.66
6	2.21	2.53	0.148	0.13
7	0.57	0.50	0.455	-0.26
8	1.11	1.12	0.301	-0.37
9	1.43	0.78	0.241	0.64
10	0.33	0.28	0.571	0.54
11	0.92	0.28	0.345	-0.53
12	0.74	0.50	0.398	-0.68
13	0.14	0.03	0.712	0.67

*Canonical correlation between artificial ANOVA variables and criteria

Table 65

Multivariate Analysis of Variance (MANOVA) of STJC Data for N-R and R-SC Groups: Groups by Sex Interations Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	1.81	13.00	16.00	0.13	0.77

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	1.47	0.83	0.235	-1.63
2	3.50	2.94	0.072	0.09
3	2.65	1.91	0.115	-0.78
4	1.60	1.05	0.216	0.36
5	1.86	1.00	0.184	0.04
6	0.01	0.01	0.918	0.64
7	0.58	0.51	0.451	-0.43
8	6.15	6.22	0.019	1.67
9	0.00	0.00	0.976	-1.34
10	0.00	0.00	0.981	-1.16
11	0.72	0.22	0.404	-0.40
12	2.63	1.79	0.116	0.87
13	0.50	0.11	0.487	-0.39

*Canonical correlation between artificial ANOVA variables and criteria

Table 66

Multivariate Analysis of Variance (MANOVA) of STJC Data for R-SC and S-C Groups: Groups Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	3.77	13.00	16.00	0.007	0.86

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
1	0.21	0.12	0.650	1.38
2	0.29	0.28	0.594	0.38
3	0.76	0.78	0.391	0.21
4	0.97	0.78	0.334	-2.19
5	0.00	0.00	1.000	0.38
6	0.14	0.12	0.708	-1.69
7	0.93	0.50	0.343	1.00
8	1.26	1.12	0.270	1.74
9	5.84	2.53	0.022	-1.51
10	0.00	0.00	1.000	-1.25
11	0.82	0.28	0.374	0.80
12	0.15	0.12	0.704	0.21
13	0.00	0.00	1.000	-1.51

*Canonical correlation between artificial ANOVA variables and criteria

Table 67

Multivariate Analysis of Variance (MANOVA) of STJC Data for R-SC and S-C Groups: Sex Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	2.13	13.00	16.00	0.07	0.80

UNIVARIATE F TESTS

PSAI Item	F(1,28)	Mean Square	p less than	Standardized Discriminant function coefficients
1	5.08	3.02	0.032	0.11
2	2.45	2.36	0.129	0.85
3	0.46	0.48	0.502	-0.20
4	2.43	1.97	0.130	1.16
5	2.69	1.79	0.112	0.08
6	5.46	4.76	0.027	1.46
7	0.53	0.29	0.472	-0.65
8	1.62	1.45	0.213	-0.76
9	0.19	0.08	0.663	-0.74
10	1.45	0.96	0.238	-0.62
11	0.07	0.02	0.793	1.01
12	1.35	1.14	0.255	-0.63
13	1.03	0.24	0.318	1.01

*Canonical correlation between artificial ANOVA variables and criteria

APPENDIX D

Means and standard deviations, intercorrelations, and analyses of IPAT-16PF data.

Tables 68-85

Table 68

Multivariate Analysis of Variance (MANOVA) of Teacher's Primary Factor Scores on the IPAT 16 Personality Factor Questionnaire for N-R and S-C Groups: Groups Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	0.30	16.00	13.00	0.99	0.52

UNIVARIATE F TESTS

Factor	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
A	1.06	2.86	0.311	-0.62
B	0.22	0.48	0.645	-0.48
C	0.21	0.60	0.648	0.61
E	0.01	0.02	0.934	0.08
F	0.80	3.42	0.378	-0.75
G	0.70	2.16	0.408	0.37
H	0.23	1.09	0.632	0.69
I	0.16	0.48	0.691	-0.02
L	1.19	3.93	0.284	-0.80
M	0.01	0.02	0.946	-0.22
N	0.83	5.79	0.370	0.74
O	1.51	2.29	0.229	-0.11
Q_1	0.17	0.57	0.686	-0.77
Q_2	0.69	2.50	0.412	-0.80
Q_3	0.03	0.07	0.858	-0.41
Q_4	1.05	2.57	0.314	0.78

*Canonical correlation between artificial ANOVA variables and criteria

Table 69

Multivariate Analysis of Variance (MANOVA) of Teacher's Primary Factor Scores on the IPAT 16PF Personality Factor Questionnaire for N-R and S-C Groups: Sex Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	1.11	16.00	13.00	0.42	0.76

UNIVARIATE F TESTS

Factor	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
A	0.18	0.50	0.670	0.01
B	0.70	1.53	0.411	1.31
C	0.27	0.78	0.605	-1.34
E	2.60	9.03	0.118	0.23
F	3.24	13.78	0.083	0.63
G	2.00	6.12	0.169	-0.82
H	0.33	1.53	0.572	-0.67
I	0.52	1.53	0.477	-0.99
L	2.14	7.03	0.155	0.90
M	0.82	3.12	0.373	0.77
N	0.07	0.50	0.791	-0.67
O	2.96	4.50	0.096	0.38
Q_1	0.04	0.12	0.850	0.75
Q_2	1.95	7.03	0.173	-0.10
Q_3	0.23	0.50	0.636	0.48
Q_4	0.82	2.00	0.374	-1.67

*Canonical correlation between artificial ANOVA variables and criteria

Table 70

Multivariate Analysis of Variance (MANOVA) of Teacher's Primary Factor Scores on the IPAT 16 Personality Factor Questionnaire for N-R and S-C Groups: Groups by Sex Interaction

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	1.04	16.00	13.00	0.47	0.75

UNIVARIATE F TESTS

Factor	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
A	0.01	0.02	0.936	0.57
B	0.00	0.00	0.988	0.80
C	0.29	0.83	0.593	-0.46
E	2.84	9.86	0.103	-0.51
F	0.88	3.75	0.355	-0.21
G	1.25	3.84	0.273	-0.95
H	0.88	4.11	0.357	-0.86
I	1.39	4.11	0.248	-0.29
L	0.68	2.23	0.417	1.00
M	1.52	5.79	0.228	0.83
N	0.53	3.67	0.474	-1.10
O	0.13	0.20	0.720	-0.11
Q_1	0.23	0.79	0.635	0.79
Q_2	0.66	2.36	0.425	0.15
Q_3	0.04	0.10	0.834	-0.15
Q_4	0.16	0.39	0.693	-1.41

*Canonical correlation between artificial ANOVA variables and criteria

Table 71

Multivariate Analysis of Variance (MANOVA) of Teacher's Primary Factor Scores on the IPAT 16 Personality Factor Questionnaire for N-R and R-SC Groups: Groups Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	0.51	16.00	13.00	0.90	0.62

Factor	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
A	0.26	0.61	0.615	1.10
B	0.36	1.10	0.553	0.94
C	0.24	0.68	0.628	-0.30
E	0.26	0.75	0.612	0.48
F	0.09	0.57	0.761	-0.96
G	1.86	8.00	0.184	-0.25
H	0.93	3.25	0.342	-0.57
I	0.37	1.10	0.547	-0.73
L	0.83	2.23	0.369	-0.07
M	0.02	0.08	0.886	-0.92
N	0.80	5.36	0.380	-0.82
O	0.31	0.96	0.584	0.18
Q	0.76	2.94	0.391	0.03
Q	0.01	0.01	0.947	-0.58
Q	1.74	4.67	0.198	0.25
Q	1.37	4.76	0.251	0.68

*Canonical correlation between artificial ANOVA variables and criteria

Table 72

Multivariate Analysis of Variance (MANOVA) of Teacher's Primary Factor Scores on IPAT 16 Personality Factor Questionnaire for N-R and R-SC Groups: Sex Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	1.83	16.00	13.00	0.14	0.83

UNIVARIATE F TESTS

Factor	F(1,28)	Mean Square	p less than	Standard Discriminant Function Coefficients
A	0.33	0.78	0.568	0.56
B	6.43	19.53	0.017	1.31
C	0.10	0.28	0.755	-0.54
E	3.15	9.03	0.087	0.43
F	0.02	0.12	0.887	-0.98
G	0.36	1.53	0.556	-0.60
H	0.73	2.53	0.402	-0.02
I	0.86	2.53	0.362	-0.42
L	0.29	0.78	0.593	0.56
M	0.19	0.78	0.663	-1.00
N	0.30	2.00	0.590	-0.22
O	1.44	4.50	0.241	-0.42
Q_1	0.20	0.78	0.657	0.21
Q_2	1.88	5.28	0.181	-0.91
Q_3	0.94	2.53	0.340	1.21
Q_4	0.04	0.12	0.851	0.80

* Canonical correlation between artificial ANOVA variables and criteria

Table 73

Multivariate Analysis of Variance (MANOVA) of Teacher's Primary Factor Scores on the IPAT 16 Personality Factor Questionnaire for N-R and R-SC Groups: Groups by Sex Interaction

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	2.12	16.00	13.00	0.09	0.85

UNIVARIATE F TESTS

Factor	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
A	0.08	0.18	0.784	0.17
B	2.80	8.15	0.105	0.96
C	0.57	1.61	0.457	-0.11
E	3.64	10.43	0.067	-0.70
F	4.01	24.45	0.055	-0.03
G	0.83	3.58	0.369	-0.55
H	0.72	2.50	0.404	-0.67
I	1.22	3.58	0.279	0.85
L	0.02	0.04	0.903	1.13
M	0.02	0.06	0.904	0.01
N	0.00	0.03	0.946	-0.50
O	4.36	13.67	0.046	-1.55
Q_1	0.61	2.36	0.442	0.63
Q_2	1.53	4.29	0.227	-0.18
Q_3	2.98	8.00	0.096	0.48
Q_4	1.73	6.00	0.199	-0.13

*Canonical correlation between artificial ANOVA variables and criteria

Table 74

Multivariate Analysis of Variance (MANOVA) of Teacher's Primary Factor Scores on the IPAT 16 Personality Factor Questionnaire for R-SC and SC Groups: Groups Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	0.98	16.00	13.00	0.52	0.74

UNIVARIATE F TESTS

Factor	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
A	0.30	0.78	0.589	0.24
B	1.56	4.50	0.222	0.49
C	0.00	0.00	1.000	0.80
E	0.11	0.50	0.740	0.21
F	1.31	9.03	0.262	-1.54
G	0.22	0.78	0.645	-0.40
H	0.10	0.50	0.753	-0.46
I	1.10	3.12	0.303	-0.06
L	0.21	0.50	0.648	-0.70
M	0.01	0.03	0.929	0.31
N	0.02	0.12	0.880	0.50
O	0.36	1.12	0.556	-1.01
Q_1	0.33	0.78	0.569	0.11
Q_2	0.95	2.00	0.338	-1.50
Q_3	1.01	2.53	0.323	-0.51
Q_4	0.04	0.12	0.839	1.05

*Canonical correlation between artificial ANOVA variables and criteria

Table 75

Multivariate Analysis of Variance (MANOVA) of Teacher's Primary Factor Scores on the IPAT 16 Personality Factor Questionnaire for R-SC and S-C Groups: Sex Main Effect

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	2.58	16.00	13.00	0.05	0.87

Factor	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
A	0.32	0.83	0.577	0.84
B	6.20	17.91	0.019	1.30
C	0.07	0.24	0.787	-0.24
E	0.02	0.07	0.900	-0.95
F	0.32	2.23	0.574	-0.42
G	0.04	0.14	0.843	-0.57
H	0.01	0.05	0.921	-0.48
I	0.12	0.33	0.734	-0.03
L	2.03	4.76	0.165	0.86
M	0.58	2.23	0.454	0.66
N	0.01	0.05	0.924	-0.45
O	1.00	3.17	0.325	-1.63
Q_1	1.67	3.93	0.207	1.34
Q_2	0.27	0.57	0.606	-0.12
Q_3	1.87	4.67	0.183	0.30
Q_4	0.52	1.56	0.470	0.46

*Canonical correlation between artificial ANOVA variables and criteria

Table 76

Multivariate Analysis of Variance (MANOVA) of Teacher's Primary Factor Scores on the IPAT 16 Personality Factor Questionnaire for R-SC and S-C Groups: Groups by Sex Interaction

Test of roots	F	df(hyp)	df(error)	p less than	R*
1 through 1	0.91	16.00	13.00	0.60	0.73

UNIVARIATE F TESTS

Factor	F(1,28)	Mean Square	p less than	Standardized Discriminant Function Coefficients
A	0.03	0.08	0.859	0.72
B	2.99	8.64	0.095	1.13
C	0.04	0.13	0.844	-0.13
E	0.00	0.01	0.967	-0.60
F	1.31	9.04	0.262	-0.88
G	4.13	14.85	0.052	-0.18
H	0.04	0.20	0.842	0.06
I	0.01	0.02	0.937	-0.03
L	1.22	2.86	0.279	-0.06
M	1.82	7.02	0.188	0.09
N	0.82	4.38	0.374	0.00
O	5.43	17.16	0.027	-1.33
Q_1	0.18	0.42	0.677	0.63
Q_2	0.14	0.29	0.716	-0.65
Q_3	2.54	6.33	0.123	0.47
Q_4	1.12	3.33	0.298	0.92

*Canonical correlation between artificial ANOVA variables and criteria

Table 77

Means and Standard Deviations of Teacher's Primary Factor Scores on the IPAT 16 Personality Factor Questionnaire for N-R, R-SC and S-C Groups

Groups		Primary Factor Scores							
		A	B	C	E	F	G	H	I
N-R (N=16)	$\bar{X}$	5.00	8.12	4.37	5.94	4.93	4.94	4.25	5.19
	sd	1.50	1.50	1.54	1.73	2.05	1.88	1.84	1.80
R-SC (N=16)	$\bar{X}$	5.19	7.56	4.69	5.50	5.19	5.87	4.81	5.62
	sd	1.47	2.28	1.74	1.90	2.97	2.22	1.87	1.63
S-C (N=16)	$\bar{X}$	4.87	8.31	4.69	5.75	4.12	5.56	4.56	5.00
	sd	1.67	1.40	1.74	2.18	2.19	1.67	2.39	1.63
		L	M	N	O	Q_1	Q_2	Q_3	Q_4
N-R (N=16)	$\bar{X}$	5.75	5.44	4.87	5.44	5.62	7.12	5.37	5.94
	sd	1.84	1.93	2.80	1.21	2.16	2.16	1.50	1.69
R-SC (N=16)	$\bar{X}$	5.19	5.37	5.62	5.19	6.19	7.19	6.06	5.19
	sd	1.28	1.96	2.22	2.37	1.68	1.11	1.88	2.01
S-C (N=16)	$\bar{X}$	4.94	5.31	5.75	4.81	5.87	6.69	5.50	5.31
	sd	1.81	1.99	2.32	1.28	1.36	1.66	1.37	1.35

Table 78

Mean and Standard Deviation of Teacher's Primary Factor Scores on the IPAT 16 Personality Factor Questionnaire for N-R, R-SC and S-C Groups: Separate Sex Groups

Group	Primary Factor Scores							
	A	B	C	E	F	G	H	I
N-R boys (N=7) $\bar{X}$	5.43	7.86	4.71	4.71	3.86	5.00	3.57	5.86
sd	1.62	1.34	1.50	1.70	1.46	1.63	1.40	2.19
R-SC boys (N=9) $\bar{X}$	5.00	6.44	4.56	5.56	5.89	5.33	4.78	5.56
sd	1.73	2.30	1.81	2.13	3.30	2.60	2.49	1.88
S-C boys (N=9) $\bar{X}$	4.78	8.11	4.67	5.78	3.89	6.22	4.67	4.89
sd	1.92	1.54	1.94	2.54	2.03	1.72	2.65	1.36
N-R girls (N=9) $\bar{X}$	5.56	8.33	4.11	6.89	5.78	4.89	4.78	4.67
sd	1.51	1.66	1.61	1.05	2.11	2.15	2.05	1.32
R-SC girls (N=7) $\bar{X}$	5.43	9.00	4.86	5.43	4.29	6.57	4.86	5.71
sd	1.13	1.29	1.77	1.72	2.43	1.51	0.69	1.38
S-C girls (N=7) $\bar{X}$	5.00	8.57	4.71	5.71	4.43	4.71	4.43	5.14
sd	1.41	1.27	1.60	1.80	2.51	1.25	2.22	2.03

Table 79

Mean and Standard Deviation of Teacher's Primary Factor Scores on the IPAT 16 Personality Factor Questionnaire for N-R, R-SC and S-C Groups: Separate Sex Groups

Group	Primary Factor Scores							
	L	M	N	O	Q_1	Q_2	Q_3	Q_4
N-R boys (N=7) $\bar{X}$	5.57	5.57	4.56	5.14	5.71	8.00	5.57	5.57
sd	1.40	1.40	2.76	1.34	1.25	1.29	1.51	1.51
R-SC boys (N=9) $\bar{X}$	5.11	5.56	5.33	6.11	5.78	7.22	5.33	5.67
sd	1.54	1.81	2.74	2.15	1.48	0.97	1.80	1.94
S-C boys (N=9) $\bar{X}$	4.33	4.67	6.11	4.44	5.67	6.89	5.56	5.22
sd	2.06	2.34	2.31	1.01	1.41	2.09	1.74	1.64
N-R girls (N=9) $\bar{X}$	5.89	5.33	5.11	5.67	5.56	6.44	5.22	6.22
sd	2.20	2.34	2.98	1.12	2.74	2.51	1.56	1.86
R-SC girls (N=7) $\bar{X}$	5.29	5.14	6.00	4.00	6.71	7.14	7.00	4.57
sd	0.95	2.27	1.41	2.24	1.89	1.34	1.63	2.07
S-C girls (N=7) $\bar{X}$	5.71	6.14	5.29	5.29	6.14	6.43	5.43	5.43
sd	1.11	1.07	2.43	1.50	1.34	0.97	0.79	0.98

Table 80

Intercorrelations for Primary Factor Scores of Teachers on the IPAT 16 Personality Factor Questionnaire for N-R and S-C Groups*

Factor	A	B	C	E	F	G	H	I	L	M
A	-									
B	-353	-								
C	008	169	-							
E	163	290	-019	-						
F	373	-024	282	243	-					
G	075	-120	-022	-123	-466	-				
H	208	232	345	329	509	-289	-			
I	-306	202	-333	-140	-175	050	040	-		
L	114	-389	-085	-030	158	-116	-225	-151	-	
M	011	-132	023	119	075	-028	143	321	-098	-
N	107	-311	080	-443	-177	135	-292	-451	202	-198
O	126	-165	-146	022	-013	105	-211	208	517	-037
Q_1	134	-028	367	068	010	225	150	-348	-223	-046
Q_2	-360	306	-055	021	-352	-252	-198	009	-160	-175
Q_3	-113	-365	064	-501	-290	317	-184	216	-132	375
Q_4	009	123	-359	437	254	-435	-153	-026	316	179

*Decimals have been omitted

Table 81

Intercorrelations for Primary Factor Scores of Teachers on the IPAT 16 Personality Factor Questionnaire for N-R and S-C Groups*

Factor	N	O	Q_1	Q_2	Q_3	Q_4
N	-					
O	-080	-				
Q_1	223	-203	-			
Q_2	-073	-123	-274	-		
Q_3	129	020	-127	-135	-	
Q_4	-351	173	-132	097	-388	-

*Decimals have been omitted

Table 82

Intercorrelations for Primary Factor Scores of Teachers on the IPAT 16 Personality Factor Questionnaire for N-R and R-SC Groups*

Factor	A	B	C	E	F	G	H	I	L	M
A	-									
B	-391	-								
C	281	294	-							
E	112	204	228	-						
F	186	149	385	437	-					
G	-013	-049	-102	-127	-397	-				
H	285	144	299	423	675	-267	-			
I	-014	139	-210	-043	-275	142	-014	-		
L	-014	-257	-260	072	-187	-122	-316	-060	-	
M	153	-078	-104	297	-148	-033	-042	291	133	-
N	132	031	027	-337	-311	491	-357	-231	-004	-338
O	-168	054	-155	-174	-265	-123	-346	559	456	280
Q_1	094	-053	255	-043	104	222	112	-085	-205	053
Q_2	-246	107	220	203	493	-008	497	056	234	-166
Q_3	330	-253	197	-030	-206	548	-037	210	-258	199
Q_4	-320	-008	-477	-121	-089	-269	-328	213	353	374

*Decimals have been omitted

Table 83

Intercorrelations for Primary Factor Scores of Teachers on the IPAT 16 Personality Factor Questionnaire for N-R and R-SC Groups*

Factor	N	O	Q_1	Q_2	Q_3	Q_4
N	-					
O	-113	-				
Q_1	288	-008	-			
Q_2	213	086	-395	-		
Q_3	122	-101	096	-046	-	
Q_4	-226	471	-034	186	-418	

*Decimals have been omitted

Table 84

Intercorrelations for Primary Factor Scores of Teachers on the IPAT 16 Personality Factor Questionnaire for R-SC and S-C Groups*

Factor	A	B	C	E	F	G	H	I	L	M
A	-									
B	-062	-								
C	194	389	-							
E	494	210	220	-						
F	285	183	457	453	-					
G	-003	-160	-189	-103	-414	-				
H	405	298	616	605	605	-350	-			
I	-044	004	-214	-330	-149	-034	-181	-		
L	156	-242	-257	-125	-171	053	-279	-005	-	
M	078	-187	-014	081	080	-204	179	270	171	-
N	-093	031	062	-313	249	352	-228	-053	311	-083
O	098	-071	-320	-220	-155	-166	-355	329	513	189
Q_1	075	-073	105	271	174	157	103	-165	-166	-258
Q_2	-223	282	-020	-104	-464	089	-089	068	-390	-138
Q_3	-096	-354	199	-211	-114	390	-101	100	042	214
Q_4	-093	-203	-626	-096	-115	-141	-343	229	317	151

*Decimals have been omitted

Table 85

Intercorrelations for Primary Factor Scores of Teachers on the IPAT 16 Personality Factor Questionnaire for R-SC and S-C Groups*

Factor	N	O	Q_1	Q_2	Q_3	Q_4
N	-					
O	214	-				
Q_1	188	187	-			
Q_2	049	-133	-133	-		
Q_3	367	-247	072	-193	-	
Q_4	-090	590	-031	086	-386	-

*Decimals have been omitted

APPENDIX E

Sample Teacher Characteristics Inventory (TCI)

University of Canterbury Christchurch 1 New Zealand

Code number .....

INTERVIEW SCHEDULE

INSTRUCTIONS:

* Please answer all questions.
* Work through the items in the order listed - do not go back.
* Complete as quickly as possible.
* Do not discuss the items with anyone else until all the questionnaires have been collected from your school.
* When you have completed the questionnaire, place in the envelope provided and leave with your school secretary.
* Completed schedules will be collected on the .....

The information from this schedule is strictly CONFIDENTIAL.

SECTION A

Please tick the relevant category for each question below:

SEX: Male .... Female ....

MARITAL STATUS: Married .... Single ....

AGE: Under 26yrs .... 26-35yrs .... 36-45yrs ....
46yrs and over ....

CHILDREN: YES .... No ....

LENGTH OF TIME TEACHING SINCE TRAINED: (Please specify)

..... yrs

ACADEMIC QUALIFICATIONS: (Please specify)

Teaching Certificate .....

Additional Diplomas .....

University Degrees .....

Other .....

SECTION B

Please rate ..... on the following measures. In each case circle the number for the relevant choice you make.

1. ACADEMIC ACHIEVEMENT: (5 point scale rating, as for progress cards)

   a) Reading: (high) 1 2 3 4 5 (low)

   b) Arithmetic: (high) 1 2 3 4 5 (low)

2. APPEARANCE:

1	2	3	4	5
Very neatly and adequately clothed	Neater than average	Average appearance	Scruffy and untidy	Scruffy and very untidy

3. PERSONAL HYGIENE:

1	2	3	4	5
Very clean and very particular	Clean and particular	Adequate	Dirty and smelly	Very dirty and very smelly

4. ATTRACTIVENESS:

1	2	3	4	5
Very attractive	Attractive	Average appearance	Unattractive	Extremely Unattractive

5. BEHAVIOUR TOWARD TEACHER:

1	2	3	4	5
Very polite and obedient	Polite and obedient	Average behaviour	Rude and hard to control	Very rude and uncontrollable

6. RELATIONS WITH PEERS:

1	2	3	4	5
Very popular	Popular	Accepted	Unpopular	Extremely unpopular

7. BEHAVIOUR TOWARD PEERS:

1	2	3	4	5
Very aggressive	Aggressive	Average	Shy and withdrawn	Very withdrawn

8. YOUR FEELINGS ABOUT CHILD:

1	2	3	4	5
Strongly like	Like	Accept	Dislike	Strongly dislike

9. PARENTAL SUPPORT RECEIVED BY CHILD:

1	2	3	4	5
Extremely supportive	Supportive	Average	Rejecting	Strongly rejecting

10. PARENTAL ATTITUDE TO SPECIAL CLASSES: (If applicable)

1	2	3	4	5
Very favourable	Favourable	Neutral	Unfavourable	Strongly resistant to

11. HAVE ANY OTHER MEMBERS OF THE CHILD'S FAMILY ATTENDED A SPECIAL CLASS?

YES/NO (Please strike out word which does not apply)

If so please specify .....

SECTION C

A number of statements about low IQ children (i.e. those with IQs within the 50-80 range) are listed below.

Please indicate the extent of your agreement with each statement by circling the response you think is most appropriate.

1. The training you have received as a teacher enables you to cope adequately with low IQ children in your class.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

2. A low IQ child is less likely to be adequately prepared for life if he or she is placed in a special class, rather than remaining in your class.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

3. The later a low IQ child is removed from your class and placed in a special class, the greater will be the benefits to the child.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

4. Low IQ children who attend a special class will be better adjusted socially than children of equal intellectual ability who remain in your class.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

5. The support provided by the psychological service enables you to cope adequately with low IQ children in your class.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

6. The presence of low IQ children in your class does not make undue demands upon your time.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

7. The support provided by the principal and STJC enables you to cope adequately with low IQ children in your class.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

8. The presence of low IQ children in your class impedes the progress of other children.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

9. The lack of equipment and materials available to you in your school does not enable you to cope effectively with low IQ children in your class.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

10. Low IQ children who attend special classes will not attain as high a level of academic achievement as children of equal intellectual ability in your class.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

Form A (Given to S-C and R-SC teachers):

11. At the time ..... was referred to the Psychological Service were there:
    a) not more than three children in your class who were low achievers (i.e. would score 4 or 5) in reading and arithmetic on the 5 point scale used on school progress cards),
    b) approximately ¼ of the class were low achievers
    c) approximately ½ of the class were low achievers
    d) approximately 3/4 of the class were low achievers

    and,

12. At the time ..... was referred to the Psychological Service were there:
    a) not more than three children in the class with behaviour problems
    b) approximately ¼ of the class with behaviour problems
    c) approximately ½ of the class with behaviour problems
    d) approximately 3/4 of the class with behaviour problems?

Form B (Given to the N-R teachers):

11. At the present time are there:

a) not more than three children in your class who are low achievers (i.e. would score 4 or 5) in reading and arithmetic on the 5 point scale used on school progress cards)

b) approximately ¼ of the class are low achievers

c) approximately ½ of the class are low achievers

d) approximately 3/4 of the class are low achievers

and,

12. At the present time are there:

a) not more than three children in the class with behaviour problems

b) approximately ¼ of the class with behaviour problems

c) approximately ½ of the class with behaviour problems

d) approximately 3/4 of the class with behaviour problems?

SECTION D

For the following items, please place a tick in the brackets in front of the statement which you think is most appropriate.

1. What contact have you had with special classes for low IQ children?
   - ( ) Taught a special class
   - ( ) Taught in a school with a special class
   - ( ) Teaching section in a school with a special class
   - ( ) Visited a special class
   - ( ) Read about special classes
   - ( ) Know very little or nothing about special classes
   - ( ) Other (Please specify) .....

2. Have you ever referred a child with learning problems to the psychological service?
   - ( ) Never
   - ( ) Rarely
   - ( ) Occasionally
   - ( ) Quite often
   - ( ) Frequently

3. Do you think your principal is generally in favour of special classes?
   - ( ) YES
   - ( ) NO

PLEASE PLACE THE COMPLETED QUESTIONNAIRE IN THE ENVELOPE PROVIDED, SEAL, AND HAND TO THE SCHOOL SECRETARY.

THANK YOU FOR YOUR CO-OPERATION.

APPENDIX F

Sample Principal and STJC Attitude Inventory (PSAI)

University of Canterbury Christchurch 1 New Zealand

Code number .....

INTERVIEW SCHEDULE

INSTRUCTIONS:

* Please answer all questions.
* Work through the items in the order listed - do not go back.
* Complete as quickly as possible.
* Do not discuss the items with anyone else until all the questionnaires have been collected from your school.
* When you have completed the questionnaire, place in the envelope provided and leave with your school secretary.
* Completed schedules will be collected on the .....

The information from this schedule is strictly CONFIDENTIAL.

A number of statements about low IQ children (i.e. those with IQs within the 50-80 range) are listed below.

Please indicate the extent of your agreement with each statement by circling the response you think is most appropriate.

1. Low IQ children who attend special classes become better socially adjusted than children of equal intellectual ability who remain in regular classes.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

2. The presence of low IQ children in regular classes impedes the progress of other children.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

3. The training New Zealand primary school teachers receive enables them to cope adequately with low IQ children in regular classes.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

4. A low IQ child is less likely to be adequately prepared for life if he or she is placed in a special class rather than remaining in a regular class.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

5. Low IQ children who attend special classes will not attain as high a level of academic achievement as children of equal intellectual ability who remain in regular classes.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

6. The earlier a low IQ child is placed in a special class the greater will be the benefits to the child.

1	2	3	4	5

7. The support provided by the psychological service enables New Zealand primary school teachers to cope adequately with low IQ children in regular classes.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

8. The presence of low IQ children in regular classes places undue demands on the teacher's time.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

9. The support provided by principals and STJCs enables teachers to cope adequately with low IQ children in regular classes.

1	2	3	4	5
Strongly agree	Agree	Uncertain	Disagree	Strongly disagree

For the following items please place a tick in the brackets in front of the statement which you think is most appropriate.

10. What contact have you had with special classes for low IQ children?

( ) Taught a special class
( ) Taught in a school with a special class
( ) Teaching section in a school with a special class
( ) Visited a special class
( ) Read about special classes
( ) Know very little or nothing about special classes
( ) Other (Please specify) .....

11. Have you ever referred a child with learning problems to the Psychological Service?

( ) Never
( ) Rarely
( ) Occasionally
( ) Quite often
( ) Frequently